Pregnancy Risk Assessment Monitoring System

PRAMS Report 2005

Michigan Department of Community Health

MDCH

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Executive Summary

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a population-based survey of a random sample of women who have given birth to a live-born infant in Michigan. The topics included in this survey were selected based on their relevance to maternal and infant morbidity and mortality. The following summary highlights important findings within the report:

- Almost 42% of women indicated that they had an unintended pregnancy in 2005.
- Prior to pregnancy, 53% of women reported using contraception, with condoms being the most popular method (40.7%).
- Approximately 7.3% of infants were considered low birth weight (<2,500 grams), of whom 18.8% were considered very low birth weight (<1,500 grams).
- Among the 17.6% of women who reported entering prenatal care after the first trimester or not at all, over 47% reported two or more barriers to on time PNC entry.
- Over 27% of women did not even initiate breastfeeding.
- The most frequently cited reasons for not breastfeeding were 'Thought was not producing enough milk' (36.1%), 'Infant had difficulty nursing' (35.0%), and 'Breast milk did not satisfy infant (34.3%).
- Approximately 71% of women reported not smoking in the last three months of pregnancy.
- Only 5.9% of women indicated that they drank alcohol during pregnancy.
- Over 93% of women reported receiving information about placing their baby to sleep on his or her back, but only 71% reported doing so.
- Over 22% of women reported they shared a bed always/often with their baby. The main source of sleep information came from the hospital nurse (66.7%).
- A small percentage of women indicating experiencing physical abuse during pregnancy. Their husband/partner was the named abuser 72% of the time.
- About 85% of women reported receiving prenatal HIV counseling, 73.6% of whom went on to be screened for HIV during pregnancy.
- Only 54.5% of women were aware and instructed by a healthcare provider about the benefits of folic acid. In addition, 27.7% of all respondents indicated that they consumed a multivitamin daily in the month before they became pregnant.
- Among the income-eligible women, 87.2% of their infants used WIC services.
- Of the 25.6% of women who indicated they needed dental care during pregnancy, only 56.4% sought care.

Introduction

PRAMS, the Pregnancy Risk Assessment Monitoring System, is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. The Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) is an ongoing population-based survey of postpartum mothers who delivered live births and are Michigan residents. The state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy collected by PRAMS are being used for developing, implementing, and evaluating maternal and infant health intervention programs targeted to reducing infant mortality, low birth weight, and other adverse birth outcomes. The data collected are also used to monitor improvement in both national and state pregnancy-related health objectives, including the increase of infants with positive birth outcomes. This report covers a variety of topics, including, but not limited to, low birthweight, contraceptive use, pregnancy intention, health insurance, prenatal care, breastfeeding, alcohol and tobacco use, violence against women, folic acid awareness, and WIC participation.

From a frame of eligible birth certificates, over 1,800 postpartum women were selected to be surveyed in 2005. PRAMS is a combination mail/telephone survey in which women are contacted and surveyed initially via mail. If no response to the original mailing, additional mailings plus telephone contacts are made.

Throughout this report, selected maternal and child health indicators are presented graphically with detailed explanations. PRAMS data are intended to be representative of Michigan women residents whose pregnancies resulted in a live birth. Therefore, all results presented have been weighted to provide estimates that are reflective of women who had a live birth in 2005 (see Appendix A for further information on weighting). Since PRAMS only surveys women with a live birth and does not include pregnancies that end in fetal death, abortion or miscarriage, caution is advised when interpreting and generalizing the results to all pregnant women. Results with their 95% confidence intervals (CI) are also presented along with demographic characteristic breakdowns in appended tables (see Appendix B).

Maternal Demographics

Definition:

Information about maternal demographic characteristics (maternal age, race/ethnicity, education and marital status) was obtained from both the birth file while data such as income and pre-pregnancy insurance status were gathered from the PRAMS questionnaire. Two questions regarding pre-pregnancy insurance status were asked of all respondents:

Question #1: Just before you got pregnant, did you have health insurance? (Do not count Medicaid)
_No
_Yes

Question #2: Just before you got pregnant, were you on Medicaid?
_No
_Yes

Women who answered 'Yes' to question #1 and 'No' to question #2 were classified as having private insurance prior to pregnancy. Women who answered 'Yes' to question #2 were classified as participating in Medicaid prior to pregnancy. Women who answered 'No' to both questions #1 and #2 were classified as having no insurance prior to pregnancy.

Results:

In Michigan, approximately 31% of live births were to women less than 25 years of age (Figure #1). White, non-Hispanic women accounted for 74% of the study population in 2005. The most prevalent minority was non-Hispanic Blacks (17.4%), followed by Hispanics (5.1%) (Figure #2). Having at least a high school education was reported in 32.8% of the women, while some college education and college or beyond was reported in 24.2% and 30.1%, respectively (Figure #3). The majority of women reported being married (64.6%) (Figure #4). Prior to pregnancy, 22.3% of women reported being uninsured and 14.6% responded that they were on Medicaid (Figure #5).

Public Health Implications:

Having a high school diploma (32.8%) was found as the most prevalent level of education among women who delivered a live birth in 2005. The age distribution instead revealed that live births were more prevalent in women of 25-29 years old (30.5%) followed by 30-34 years old (25.1%). Therefore we conclude that there is no concordance between the age distribution and education. This underscores the need for all organizations serving women of childbearing age to tailor all outreach efforts, counseling and materials to a very basic literacy level.

Approximately one in four women who delivered a live birth in 2005 did not have health insurance prior to becoming pregnant. Access to care remains a challenging issue, and methods need to be developed to identify and refer women as soon as possible in their pregnancies.

Reference Table: #1

Maternal Demographics

Figure 1:
Prevalence of maternal age,
2005 MI PRAMS

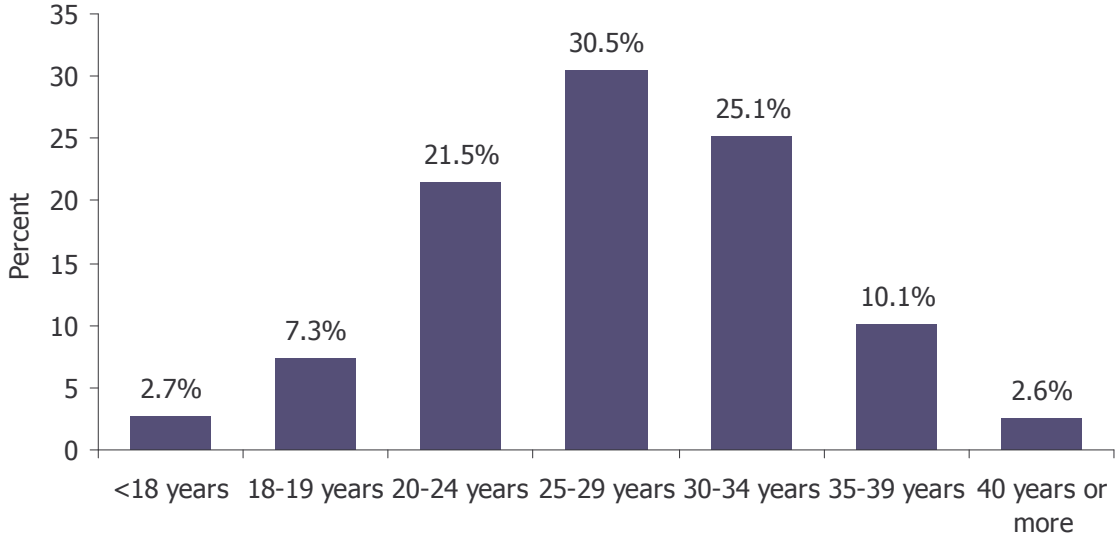
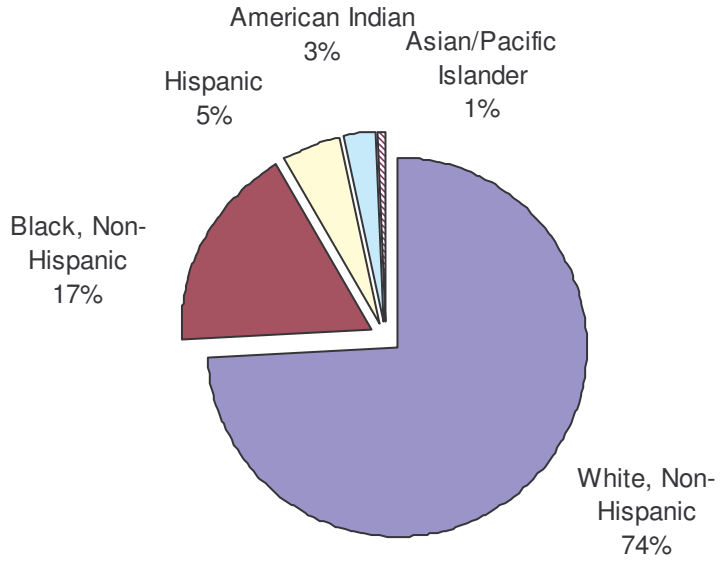


Figure 2:
Prevalence of maternal race/ethnicity,
2005 MI PRAMS



Maternal Demographics

Figure 3:
Prevalence of maternal education,
2005 MI PRAMS

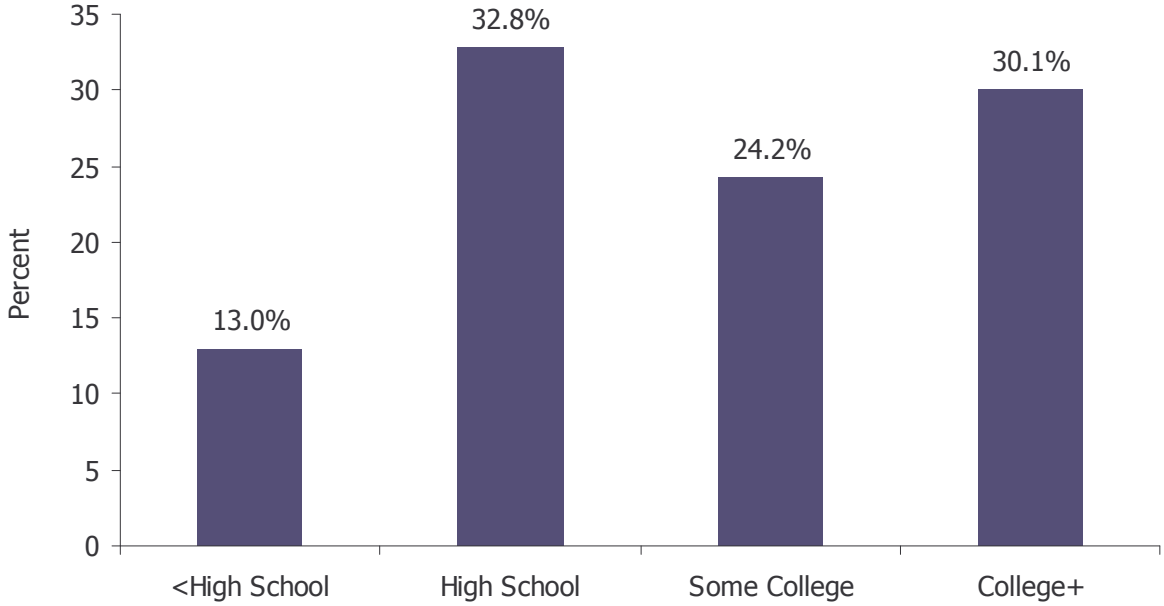
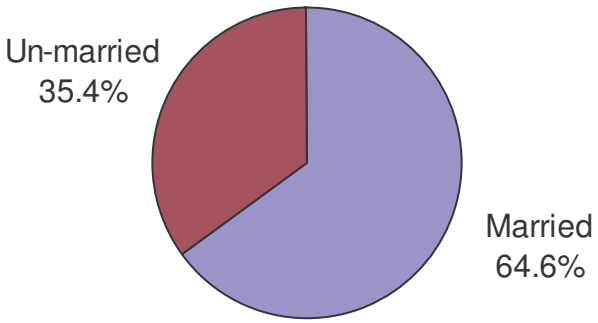


Figure 4:
Prevalence of marital status,
2005 MI PRAMS

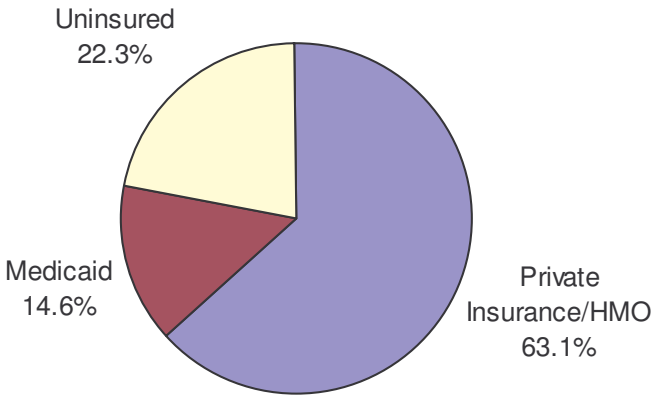


Maternal Demographics

Figure 5:

Prevalence of insurance status,

2005 MI PRAMS



Unintended Pregnancy

Definition:

Information regarding pregnancy intention was derived from the following question:

> *Question #10: Thinking back to just before you got pregnant, how did you feel about becoming pregnant?*
> *_I wanted to be pregnant sooner*
> *_I wanted to be pregnant later*
> *_I wanted to be pregnant then*
> *_I didn't want to be pregnant then or at any time in the future*

An intended pregnancy was one in which the mother answered that she wanted to be pregnant then or sooner. Women who wanted to be pregnant later or not at all were classified as having an unintended pregnancy. Unintended pregnancy can be further subdivided into two categories: mistimed pregnancies or unwanted pregnancies. Mistimed pregnancies are those in which the mother wanted to be pregnant later than the time she became pregnant. Unwanted pregnancies were those in which the mother did not want to be pregnant then or anytime in the future.

Results:

In 2005, 41.8% of women who delivered a live birth reported that they had an unintended pregnancy, with 69% of those reporting their pregnancy as mistimed (Figure #6). When stratified by race/ethnicity, unintended pregnancy was found to be most prevalent in Non-Hispanic Blacks (60.4%), followed by Hispanics (56.1%) and Non-Hispanic whites (37.5%) (Figure #7). Furthermore, both maternal age and educational status are directly proportional to pregnancy intendedness. Women age 30 years and over had more than four times higher proportion of intended pregnancy (69.5%) compared to those less than 18 years of age (15.4%) (Figure #8). In addition, women with a college degree had the highest prevalence of intended pregnancy (77.7%) while those with less than a high school education had the lowest prevalence (42.3%) (Figure #9). Women on Medicaid were the least likely to report an intended pregnancy (39.6%) followed by women with no insurance (40.8%) when compared to women with private insurance (Figure #10). Of the 45.6% of women with an unintended pregnancy who reported not using contraception, 74.1% indicated that they had a mistimed pregnancy (Figure #11). Of the 54.4% of women who had an unintended pregnancy and reported using contraception, the methods most frequently associated with contraceptive failure were withdrawal (33.6%), condoms (25.3%), and birth control pills (16.5%) (Figure #12).

Public Health Implications:

The same socio-economically vulnerable groups of women under the age of 20, uninsured, low income (Medicaid participation as a proxy), limited education (less than high school) and racial/ethnic minorities experienced and reported an unintended pregnancy in 2005. Over 50% of women experiencing an unintended pregnancy (54.4%) indicated using a contraceptive method at the time they became pregnant. The most commonly utilized contraceptive method reported were withdrawal, condoms and birth control pills. We can conclude that either women were not informed or misunderstood the proper use or these were not the most appropriate contraceptives methods for their needs. Furthermore, contraceptive services must be available to the women who need them the most. Tailored family planning services to women who never gave birth, are unmarried or are enrolled in Medicaid along with education on appropriate

contraceptive use in postpartum continued to be needed for the reduction of unwanted pregnancies.

In Michigan, great strides have been made to address the reduction of unintended pregnancy in the state. As a result, unintended pregnancy was identified as a priority public health concern and objectives of developing programs and policies capable of monitoring indicators associated with unintended pregnancy were set.

At the direction of the Governor and beginning in 2003, a workgroup created the **Blueprint for Preventing Unintended Pregnancies:**
1/Expand access to family planning through Medicaid to women up to 185% of poverty -**Plan First! Program**. Through this program, the Michigan Department of Community Health (MDCH) provides family planning services to women ages 19 to 44 who otherwise would not have medical coverage for these services.
2/**Talk Early & Talk Often:** helps parents of middle school children develop the necessary skills to talk to their children about abstinence and sexuality; Since it began in October 2005, more than 70 workshops have been held throughout Michigan in public and parochial schools, medical centers, worship centers, health departments, and libraries, reaching more than 800 parents. Survey results from parents who participated have been overwhelmingly positive. For more information, please go to http://www.michigan.gov/miparentresources/0,1607,7-107-37383---,00.html.
3/ **Contraceptive Equity** -The Governor has called upon the legislature to require that health plans that cover prescription drugs also cover birth control;
4/**Prevention of Unintended Pregnancy in Adults guidelines**: "MQIC** 2007 Prevention of Unintended Pregnancy in Adults 18 Years and Older" guideline was approved by the MQIC Medical Directors' Committee and endorsed for distribution/publication effective June 20, 2007.

Reference Tables: #2 - #5

Unintended Pregnancy

Figure 6:

Prevalence of intended and unintended pregnancies and types of unintended pregnancies, 2005 MI PRAMS

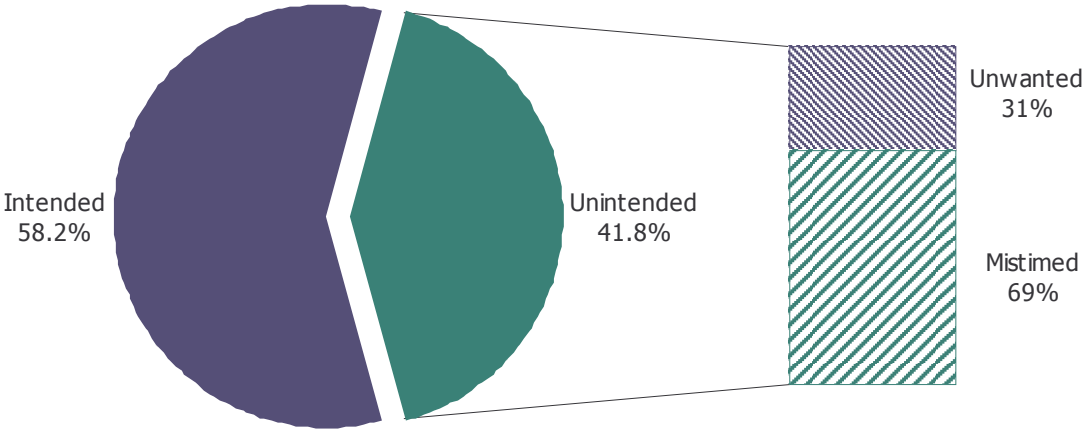
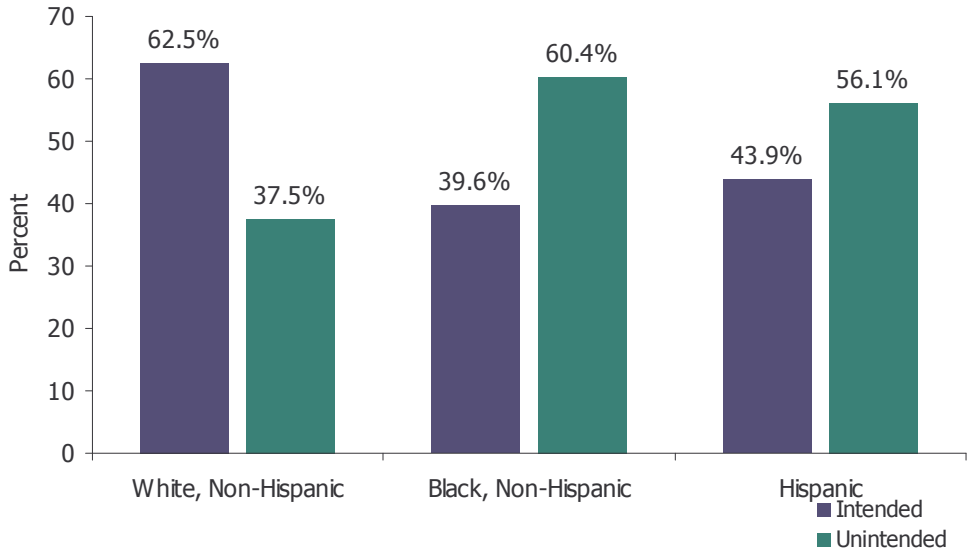


Figure 7:

Prevalence of intended and unintended pregnancies by maternal race/ethnicity; 2005 MI PRAMS



Unintended Pregnancy

Figure 8:

Prevalence of intended and unintended pregnancies by maternal age, 2005 MI PRAMS

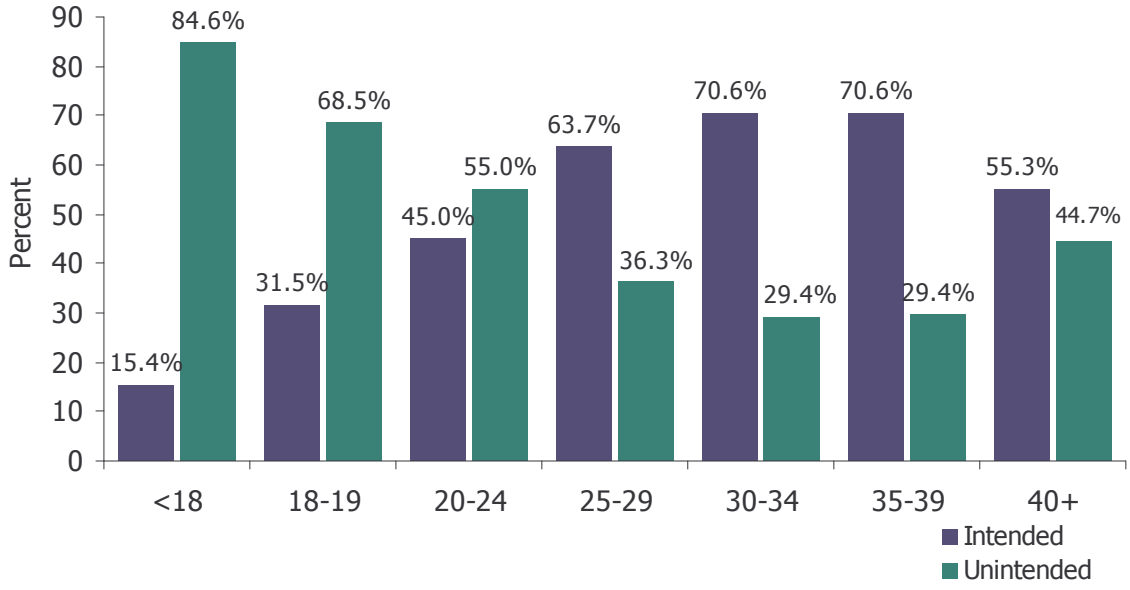
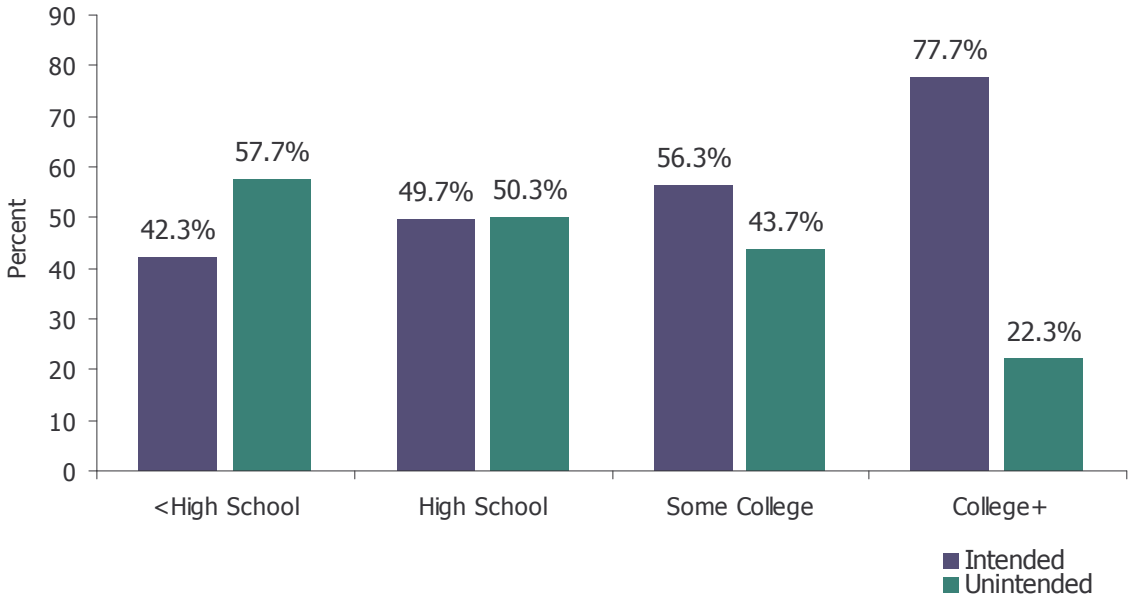


Figure 9:

Prevalence of intended and unintended pregnancies by maternal education, 2005 MI PRAMS



Unintended Pregnancy

Figure 10:

Prevalence of intended and unintended pregnancies by maternal pre-pregnancy insurance status, 2005 MI PRAMS

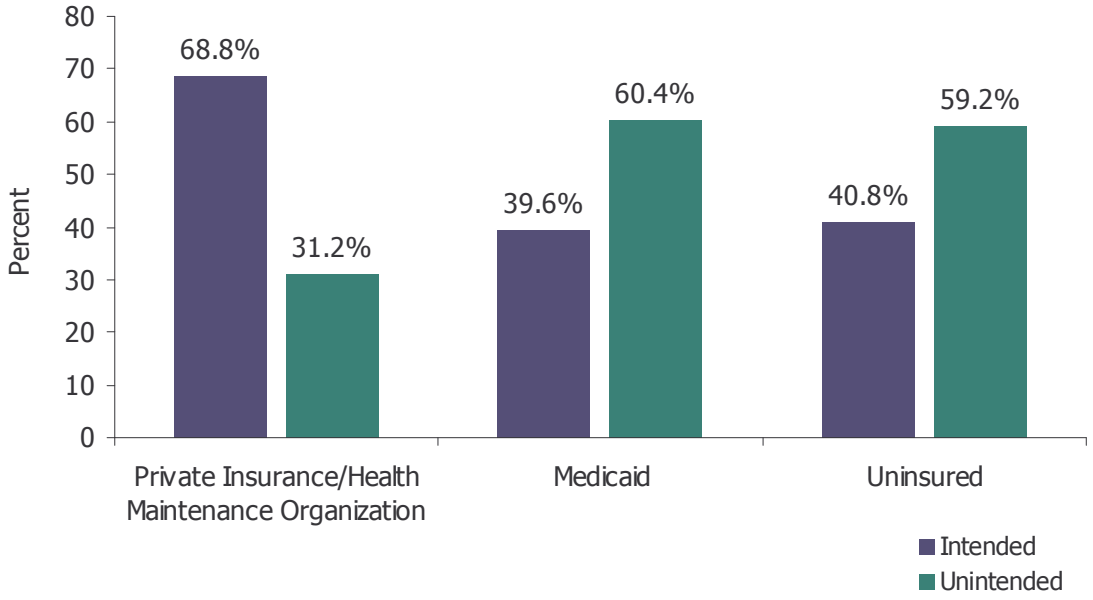
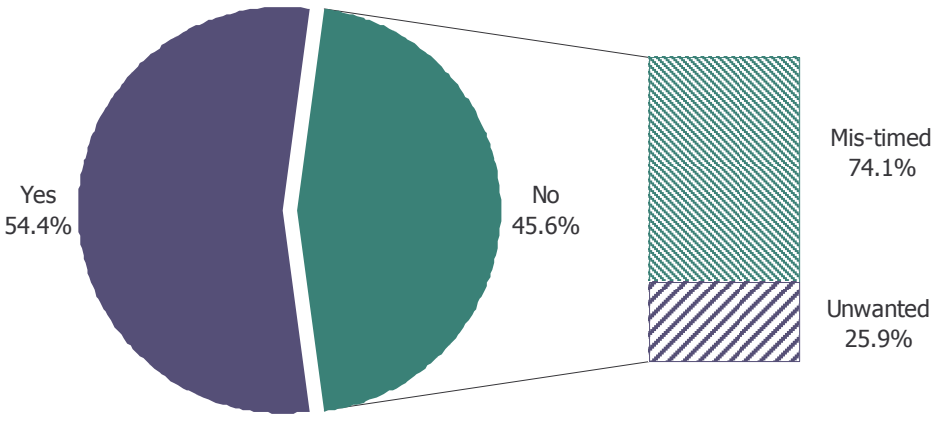


Figure 11:

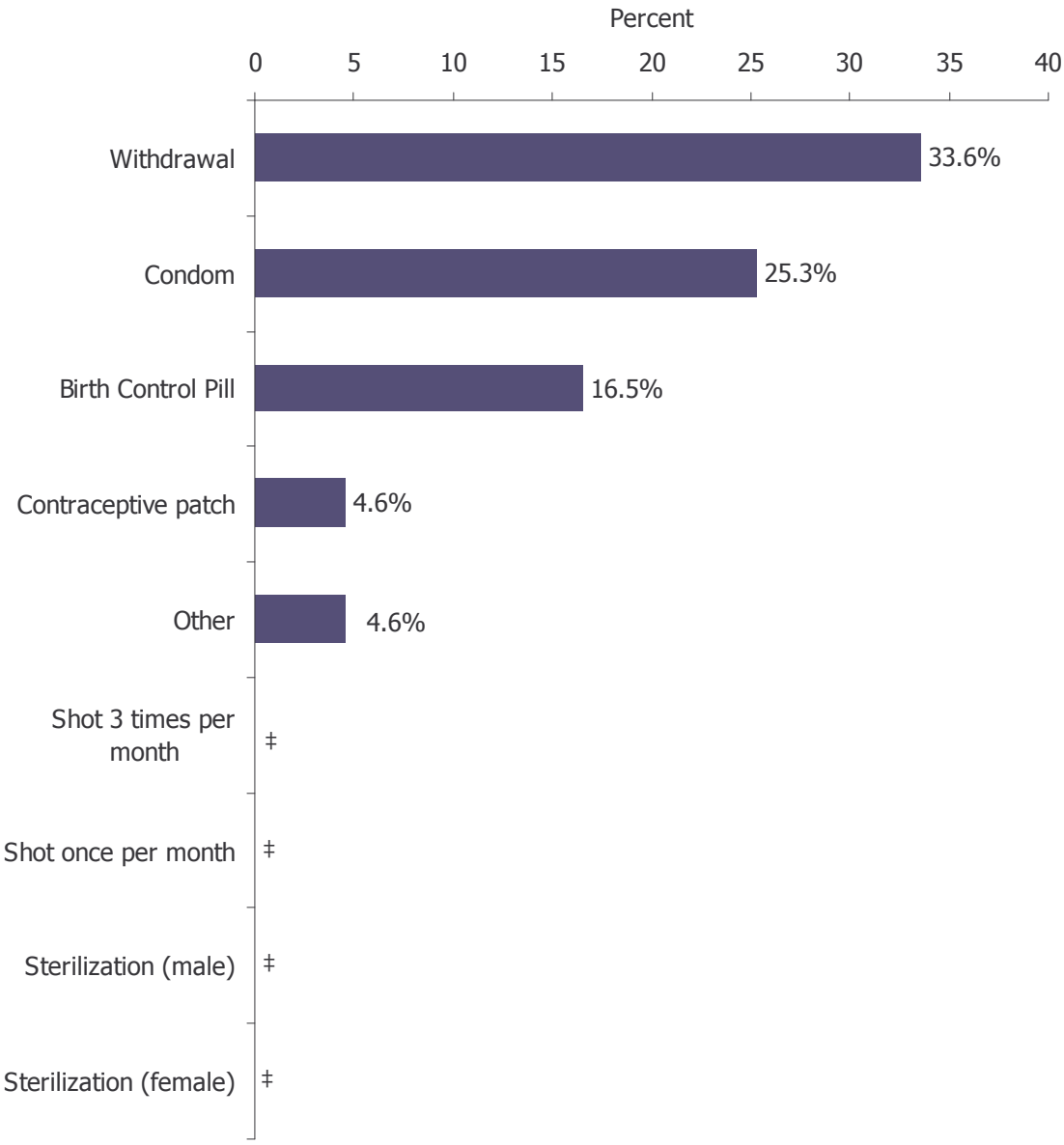
Prevalence of pre-pregnancy contraception use among women with an unintended pregnancy, 2005 MI PRAMS



Unintended Pregnancy

Figure 12:

Method of pre-pregnancy contraception among women with an unintended pregnancy, 2005 MI PRAMS



‡ Data not shown due to small sample sizes

Contraception

Definition:

Women were asked several questions regarding their use of contraception prior to and following their pregnancy. All women surveyed were asked the following question:

Question #12: When you got pregnant with your new baby, were you or your husband or partner doing anything to keep from getting pregnant?
_No
_Yes

Those who answered 'No' to question #12 were asked question #13:

Question #13: What were you or your husband or partner's reasons for not doing anything to keep from getting pregnant?
_I didn't mind if I got pregnant
_I thought I could not get pregnant at that time
_I had side effects from the birth control method I was using
_I had problems getting birth control when I needed it
_I thought my husband or partner was sterile
_My husband or partner didn't want to use anything
_Other

Those who answered 'Yes' to question #12 skipped question #13 and answered question #14:

Question #14: When you got pregnant with your new baby, what were you or your husband or partner doing to keep from getting pregnant?
_Tubes tied or closed (female sterilization)
_Vasectomy (male sterilization)
_Pill
_Condoms
_Shot once a month (Lunelle®)
_Shot once every 3 months (Depo-Provera®)
_Contraceptive patch (OrthoEvra®)
_Diaphragm, cervical cap, or sponge
_Cervical ring (NuvaRing® or others)
_IUD (including Mirena®)
_Rhythm method or natural familyplanning
_Withdrawal (pulling out)
_Not having sex (abstinence)
_Other

To gather information on the use of postpartum contraception, respondents were asked, the following:

Question #58: Are you, your husband or partner doing anything now to keep from getting pregnant?
_No
_Yes

Women who answered 'No' were asked an additional question:

Question #59: What are you and your husband or partner's reasons for not doing anything to keep from getting pregnant now?

_ I am not having sex
_I want to get pregnant
_I don't want to use birth control
_My husband or partner doesn't want to use anything
_I don't think I can get pregnant
_I can't pay for birth control
_I am pregnant now
_Other

Results:

More than half of the 2005 respondents reported using contraception prior to pregnancy (Figure #13). Women age 40 years and over had the highest prevalence of contraceptive use (52.9%) while women age 20-24 years had the lowest prevalence (44.1%) (Figure #14). White, non-Hispanic women had an almost equal prevalence as Hispanic women for contraceptive use (49.9% vs. 50%, respectively). The majority (63.1%) of Black, non-Hispanic women reported not using contraception prior to pregnancy (Figure #15). Women with some college education reported the highest prevalence of contraceptive use (53.1%). Conversely, women with less than a high school education had the lowest prevalence (37.9%) (Figure #16). Respondents with private insurance had the highest prevalence of contraceptive use (50.7%) followed by women with no insurance (44.4%) (Figure #17).

Among women who reported using contraceptives prior to pregnancy, the most popular methods were condoms (40.7%), withdrawal (36.0%), and birth control pills (27.6%) (Figure #18). The three most commonly cited reasons for non-usage were "Didn't mind getting pregnant" (41.5%), "Thought could not get pregnant" (21.5%), and "Discontinued birth control because of side effect (15.8%) (Figure #19).

During the postpartum period, 84.1% of women reported contraceptive use (Figure #20). Contraceptive use was highest among women age 20-24 (89.1%; Figure #21) and did not vary appreciably among race/ethnicity with rates ranging from 77.1% to 86.1% (Figure #22). Postpartum contraceptive use was highest among women with some college education (86.2%) and lowest among those with less than a high school education (79.6%) (Figure #23).

Health care professionals have the unique opportunity of teaching women during the prenatal period about the value of postpartum contraceptive use and PRAMS data shows the importance of this practice. Women who, during prenatal care, did not receive counseling regarding postnatal contraceptive use were more likely to be non-contraceptive users (18.3%) compared to those who received counseling by a healthcare professional (15.2%) (Figure #24). The most commonly cited reason for contraceptive non-use in the postpartum period was "did not want to use birth control" (Figure #25).

Public Health Implications:

Contraceptive use in the postpartum period was higher than prior to pregnancy (84.1% versus 53%). While older women (40 and higher) reported the use of contraception prior to pregnancy more than other age groups, younger women (20-24) were the most frequent users during the postpartum period. Black Non Hispanic women were less likely to use contraceptive methods

prior to pregnancy and in postpartum, which may explain why they have the highest rates of unintended pregnancies. Family planning counseling on the choice of the method is very important, leading also to preventing the very short inter-pregnancy intervals that are associated with various adverse maternal and infant health outcomes. By stressing the importance of spacing births and discussing contraceptive use early on should help address the issues and barriers reported by the interviewed women.

Reference Tables: #6 - #10

Contraception

Figure 13:

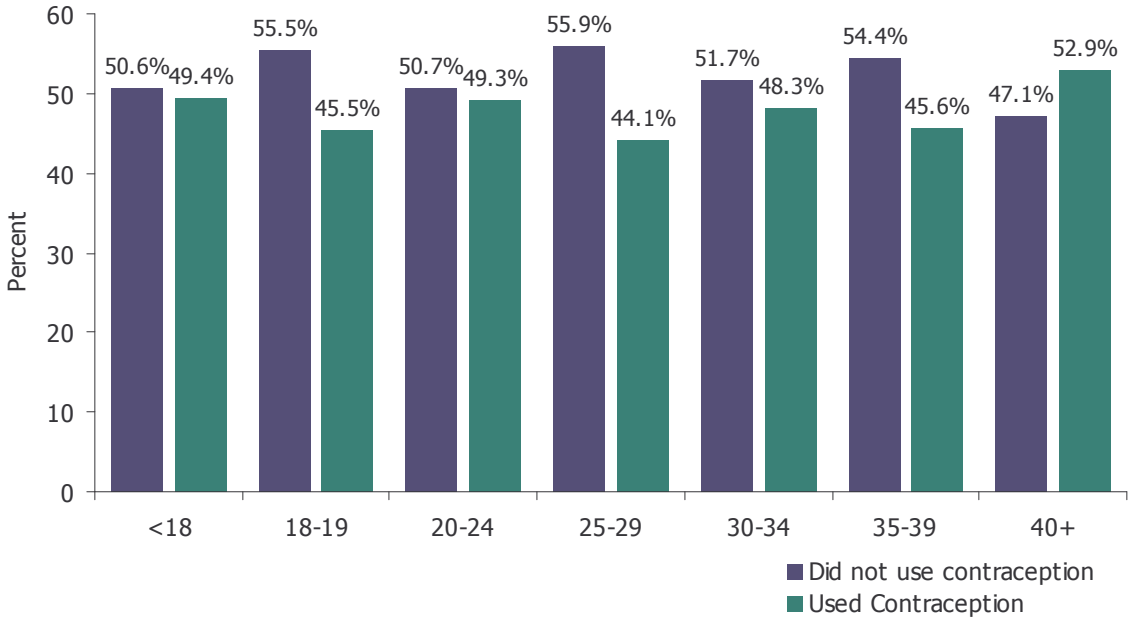
Prevalence of contraceptive use prior to pregnancy,

2005 MI PRAMS

Figure 14:

Prevalence of contraceptive use prior to pregnancy by maternal age,

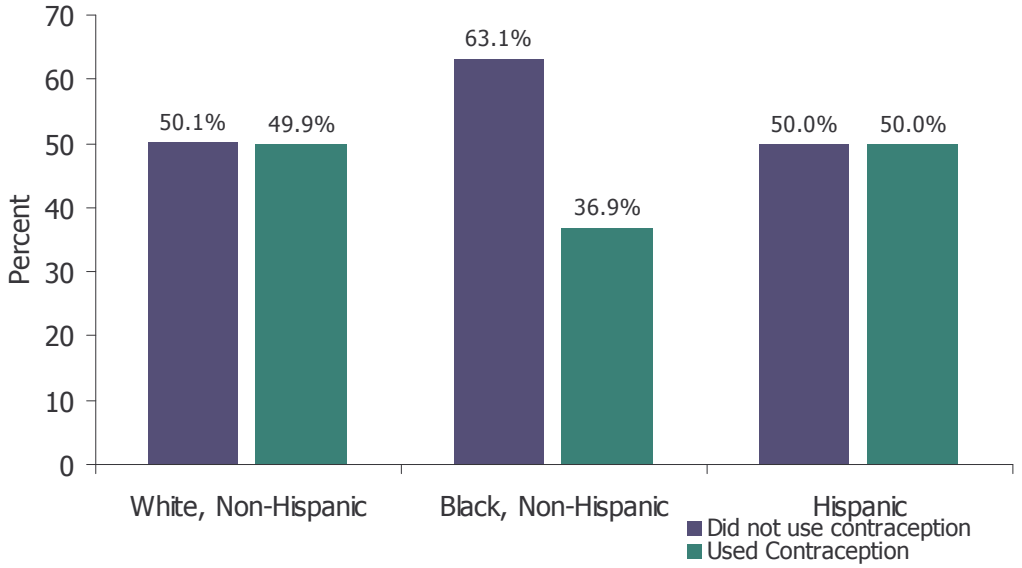
2005 MI PRAMS



Contraception

Figure 15:

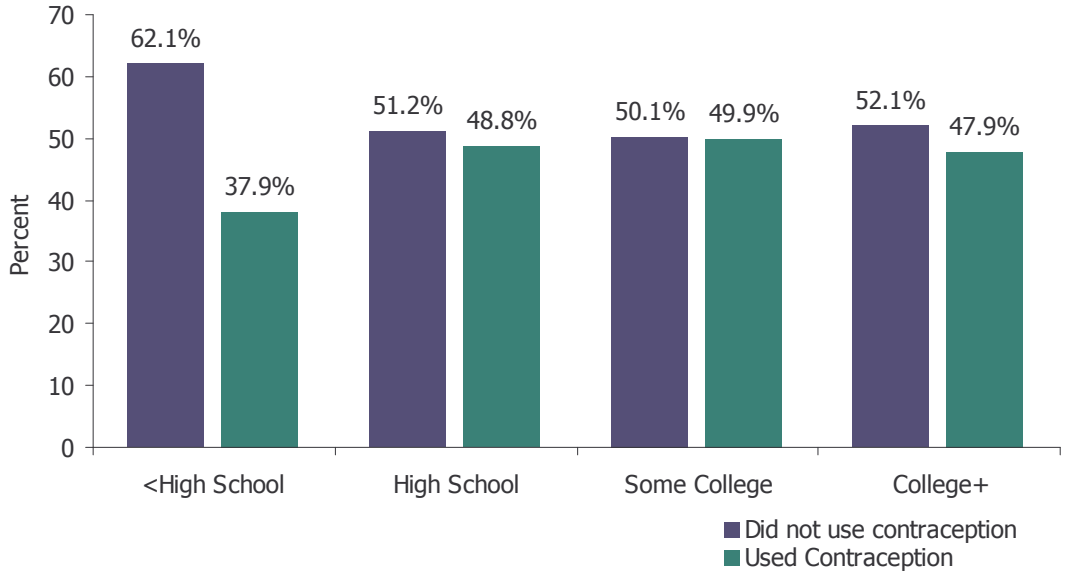
Prevalence of contraceptive use prior to pregnancy by maternal race/ethnicity**, 2005 MI PRAMS



**Statistics for 'American Indian/Alaskan Native' and 'Asian/PI' omitted due to small sample sizes

Figure 16:

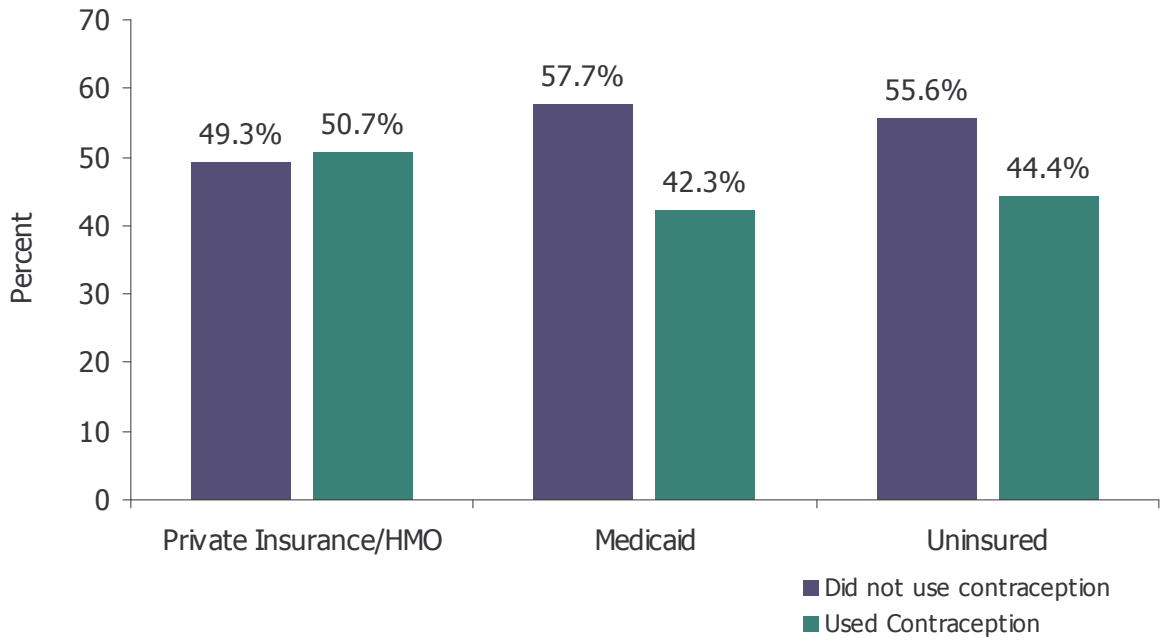
Prevalence of contraceptive use prior to pregnancy by maternal education, 2005 MI PRAMS



Contraception

Figure 17:

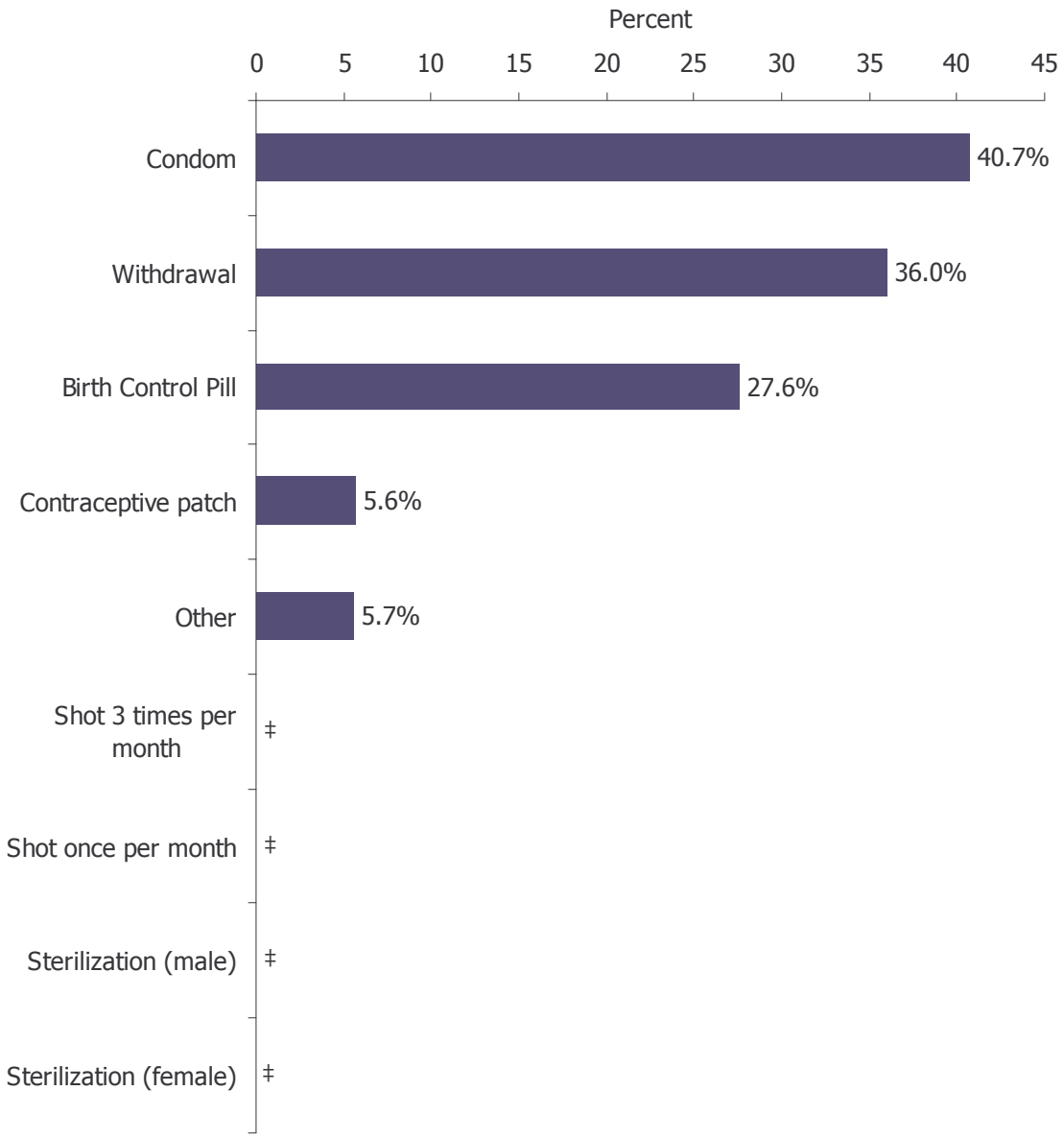
Prevalence of contraceptive use prior to pregnancy by insurance status, 2005 MI PRAMS



Contraception

Figure 18:

Method of contraception among women prior to pregnancy, 2005 MI PRAMS

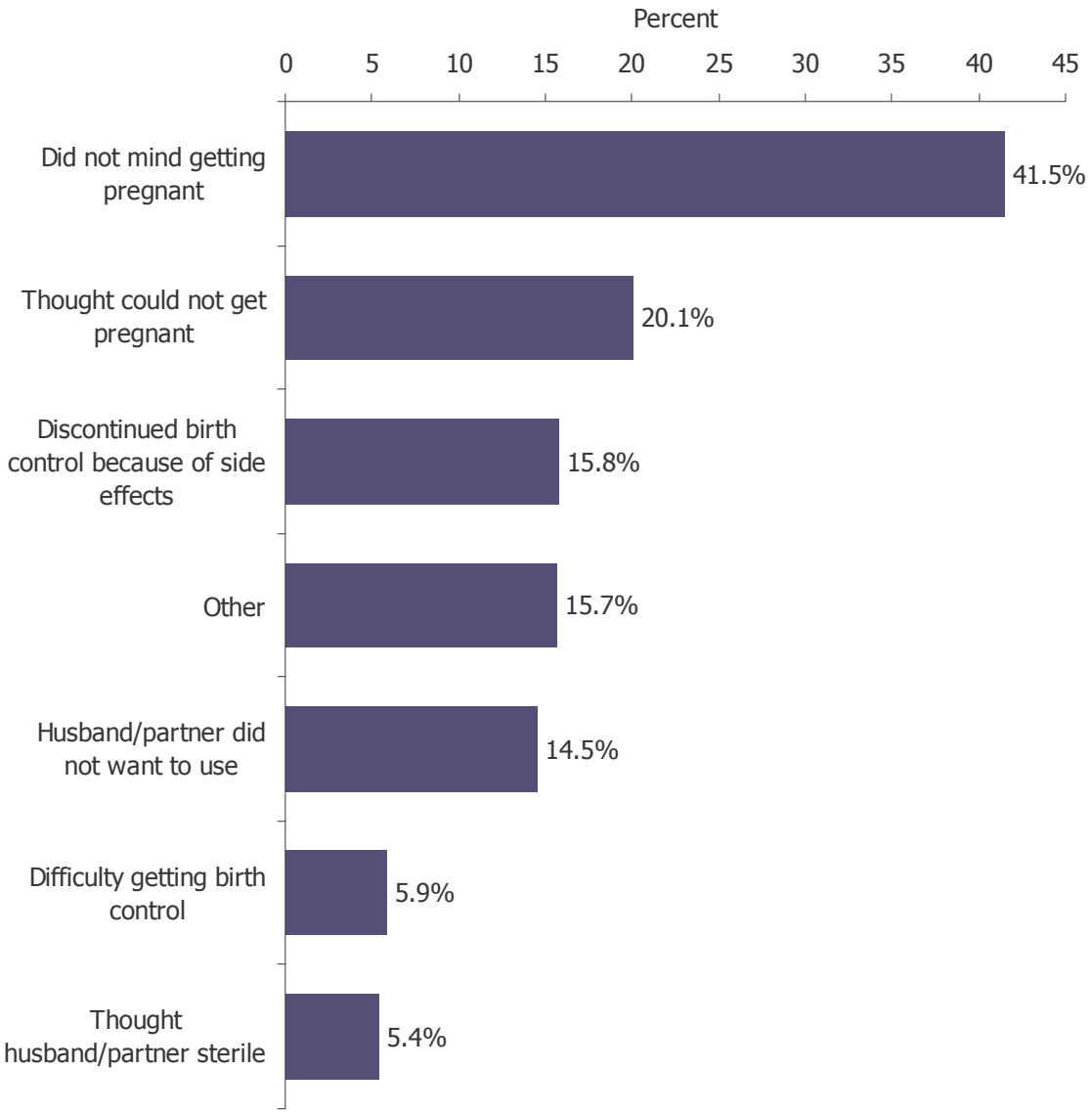


‡ Data not shown due to small sample sizes

Contraception

Figure 19:

Reasons for not using a contraceptive method prior to pregnancy,
2005 MI PRAMS



Contraception

Figure 20:

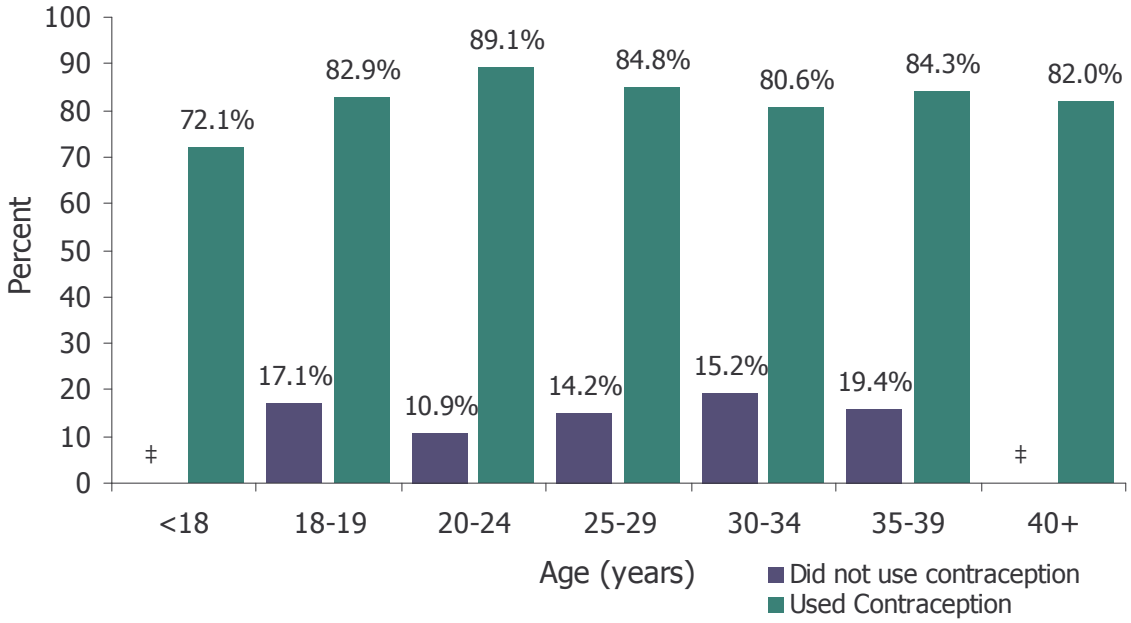
Prevalence of contraception use during the postpartum period

2005 MI PRAMS

Figure 21:

Prevalence of contraception use during the postpartum period by maternal age,

2005 MI PRAMS

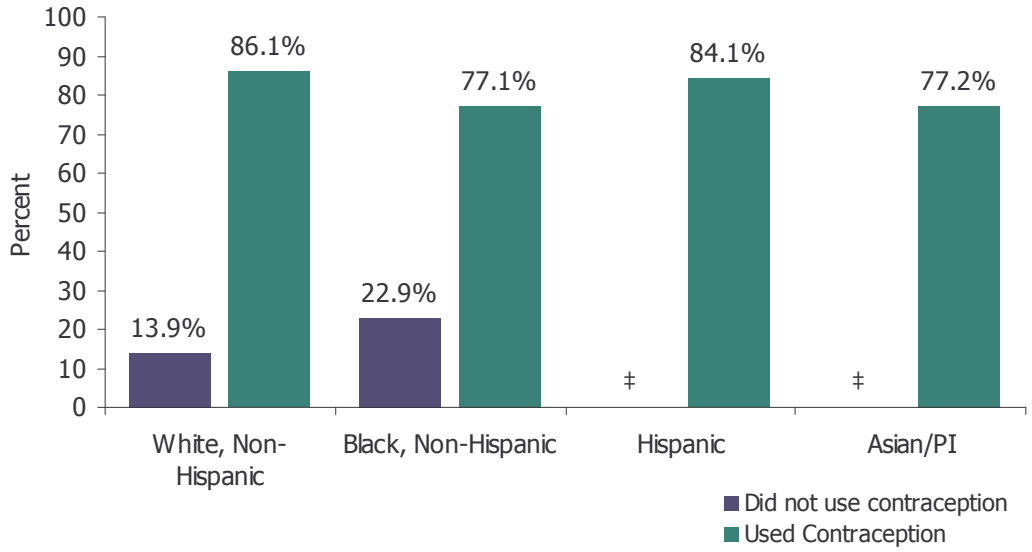


‡Data not shown due to small sample sizes

Contraception

Figure 22:

Prevalence of contraception use during the postpartum period by maternal race/ethnicity, 2005 MI PRAMS

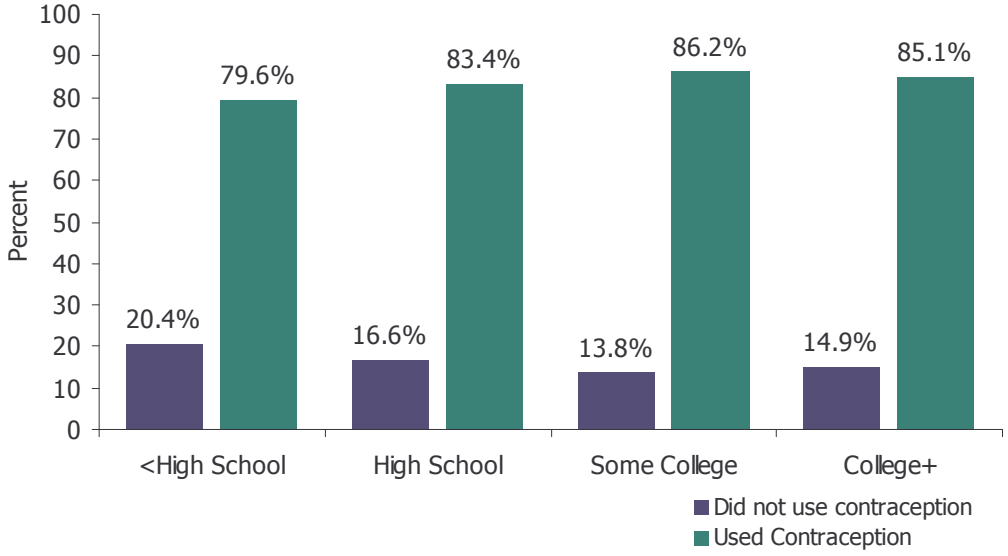


‡Data not shown due to small sample sizes

**Statistics not shown for 'American Indian/Alaskan Native' due to small sample size

Figure 23:

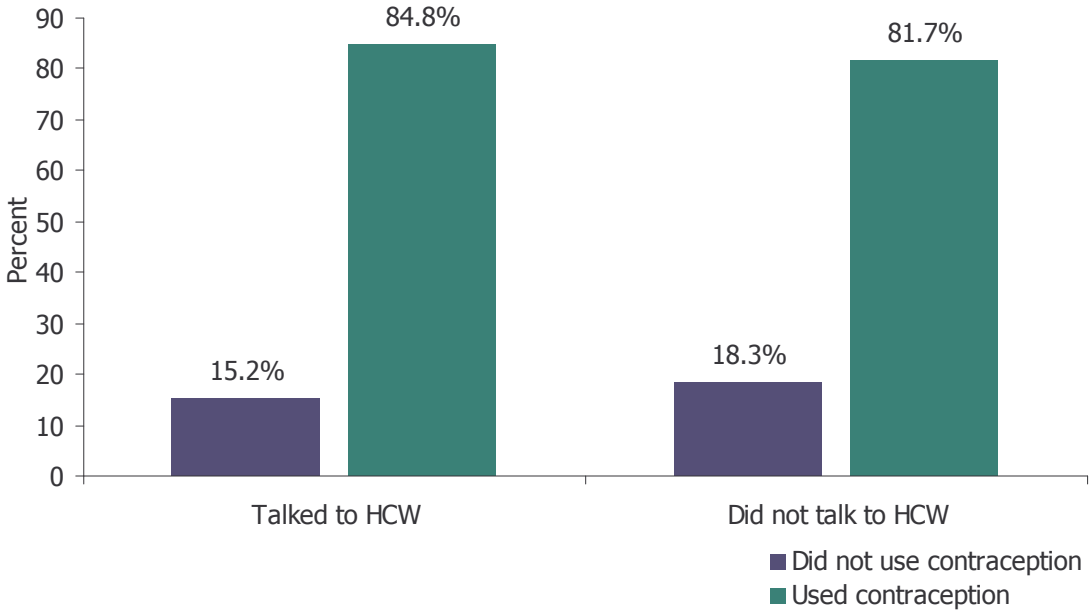
Prevalence of contraception use during the postpartum period by maternal education, 2005 MI PRAMS



Contraception

Figure 24:

Use of contraception during postpartum by discussion with health care worker during prenatal care, 2005 MI PRAMS

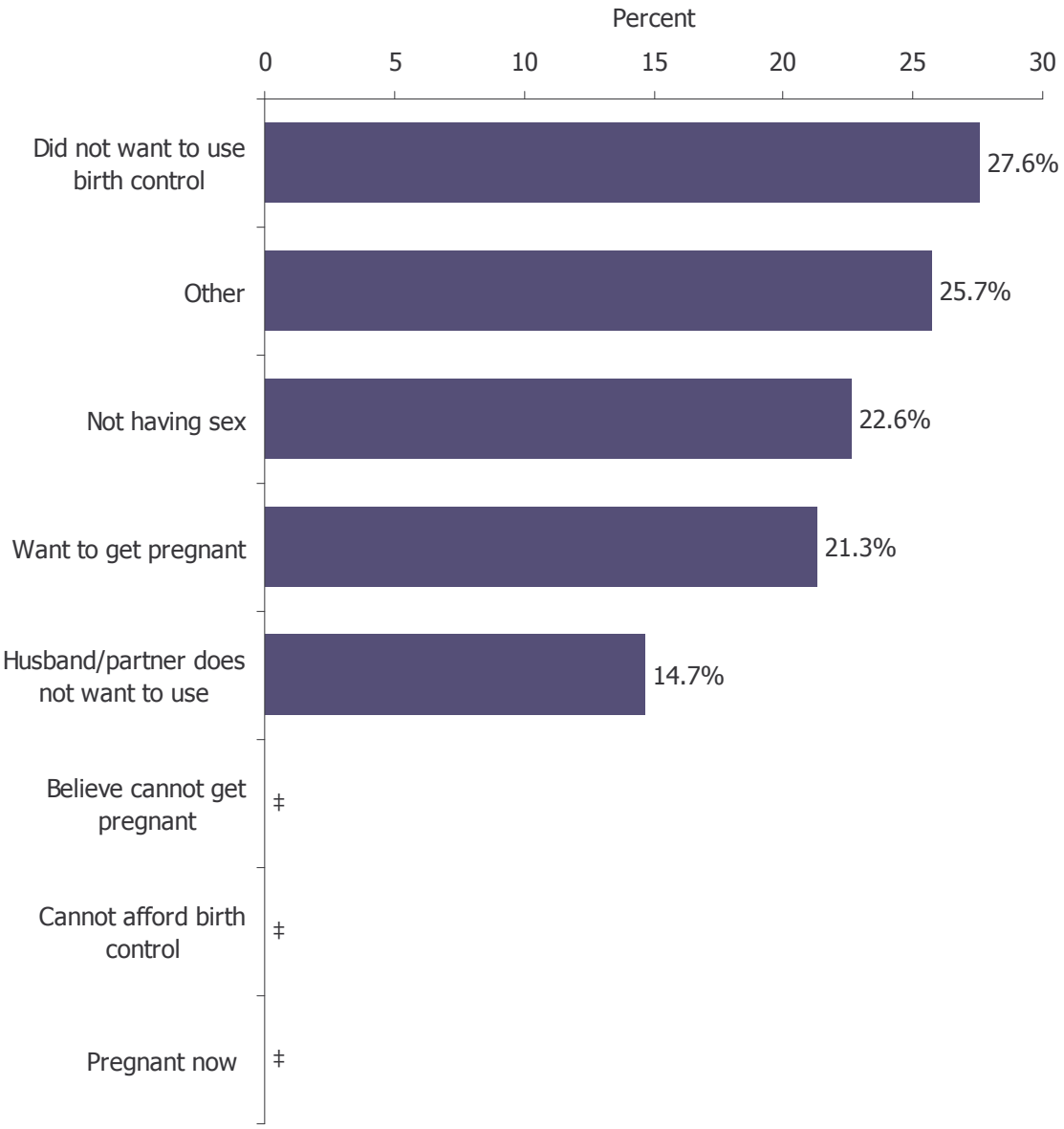


Contraception

Figure 25:

Reasons for not using a contraceptive method postpartum

2005 MI PRAMS



‡Data not shown due to small sample sizes

Low Birthweight

Definition:

Information on infant's birthweight was derived from information on the birth certificate included in PRAMS dataset. Infants were classified as 'low birthweight' if they weighed less than 2500 grams (5.51 lbs) at birth and normal birth weight if they weighed 2500 grams or more. Low birth weight infants were further subdivided into moderate low birthweight (weight=1500-2499 grams or 3.31-5.51 lbs at birth) or very low birth weight (weight <1500 grams or 3.31 lbs at birth).

Results:

Among the 123,737 live births in 2005 (PRAMS estimated), 7.3% weighed less than 2,500 grams (low birthweight) of which 81.2% were moderate low birthweight (1,500-2,499 grams) and 18.8% were very low birthweight (<1,500 grams) (Figure #26). The prevalence of low birthweight infants varied by selected maternal characteristics. Specifically, the highest rate of was seen in the women who were less than 18 years of age while the lowest rate was seen in women 20-25 years of age (Figure #27). The prevalence of low birthweight infants was highest among Black, non-Hispanic women (13.9%), which was more than double the rate in White, non-Hispanic women (6.3%). Hispanic women had the lowest rate of low birthweight infants with 3.8% (Figure #28). Women with less than a high school education reported the highest prevalence of low birthweight infants (10.4%) and the rate decreased with increasing educational attainment (Figure # 29). Medicaid recipients reported the highest prevalence of low birthweight (12.9%) followed by women who were uninsured (7.7%) (Figure #30). Of note, 67.9% of low birthweight infants were preterm (less than 37 weeks gestation) (Figure #31).

Other known risk factors for having a low birthweight infant, such as pregnancy intention and smoking status, were analyzed. Women who had an unintended pregnancy had a higher proportion of low birthweight infants than women with an intended pregnancy (9.1% vs. 6.0%; statistically significant) (Figure #32). The prevalence of low birthweight was slightly higher among the unwanted pregnancies versus the mistimed pregnancies (Figure #33). Women who reported smoking during pregnancy had a significantly higher proportion of low birthweight infants (11.3%) when compared to non-smokers (6.5%) (Figure #34).

Public Health Implications:

Those who are at risk for delivering a low birth weight infant are women under twenty, with less than high school education, enrolled in Medicaid, non-Hispanic Blacks and had an unintended pregnancy. We would like to highlight that the majority (about 70%) of low birth weight infants were also born preterm. Therefore, we could conclude that the efforts targeted to prevent early labor and pre-term birth through counseling about the risks for preterm would have a considerable impact on the number of preterm and low birth weight births as well.

Reference Tables: #11- #14

Low Birthweight

Figure 26:

Prevalence of infant birthweight and types of low birthweight,
2005 MI PRAMS

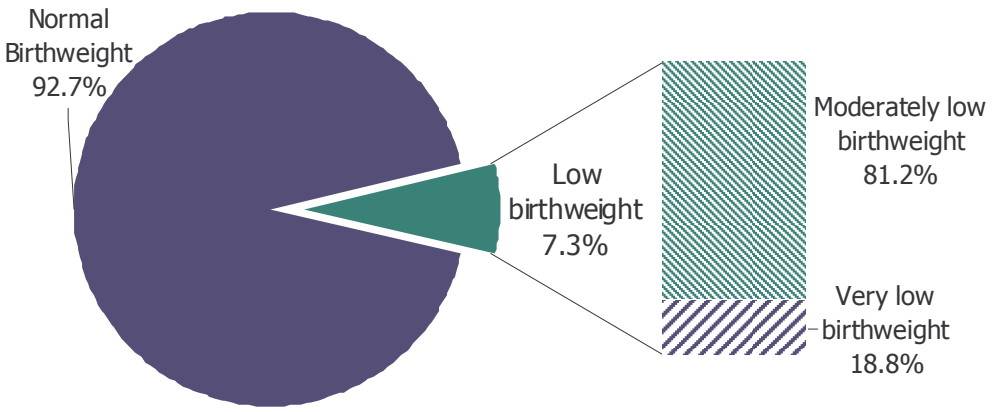
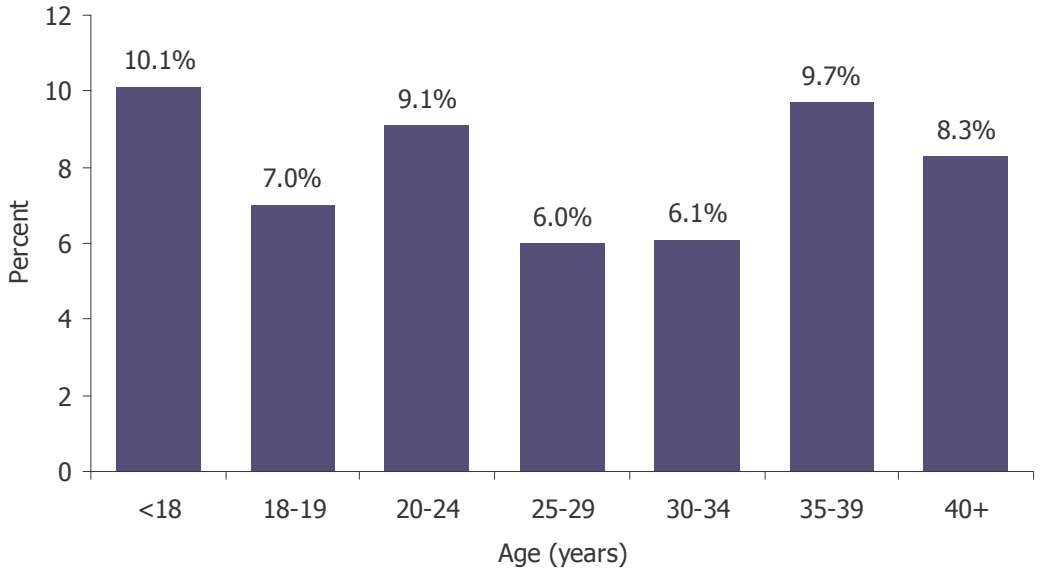


Figure 27:

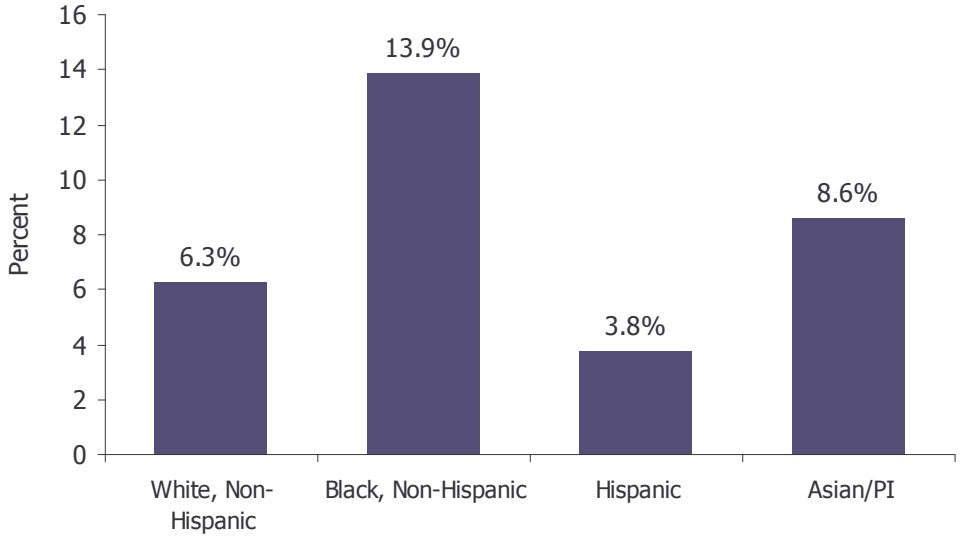
Prevalence of low birthweight by maternal age,
2005 MI PRAMS



Low Birthweight

Figure 28:

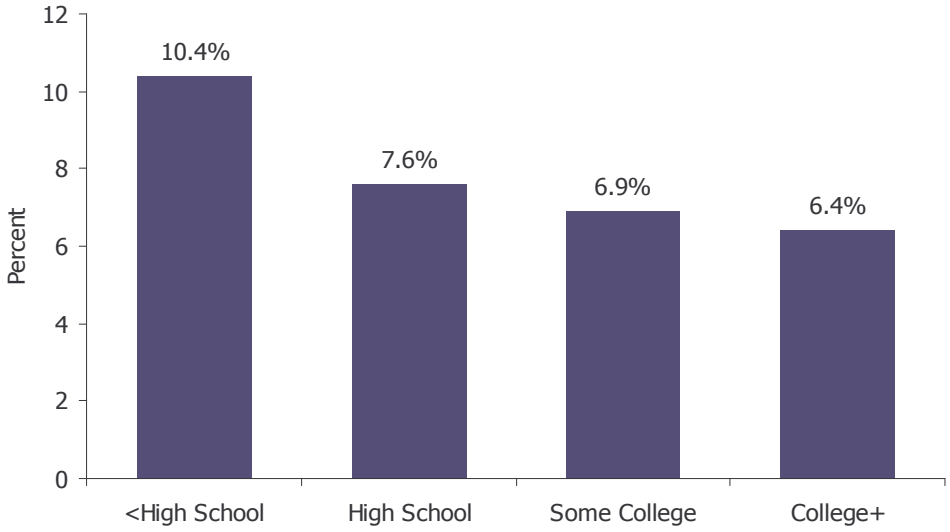
Prevalence of low birthweight by maternal race/ethnicity,
2005 MI PRAMS



**Statistics not shown for 'American Indian/Alaskan Native' due to small sample size

Figure 29:

Prevalence of low birthweight by maternal education,
2005 MI PRAMS



Low Birthweight

Figure 30:

Prevalence of low birthweight by maternal pre-pregnancy insurance status, 2005 MI PRAMS

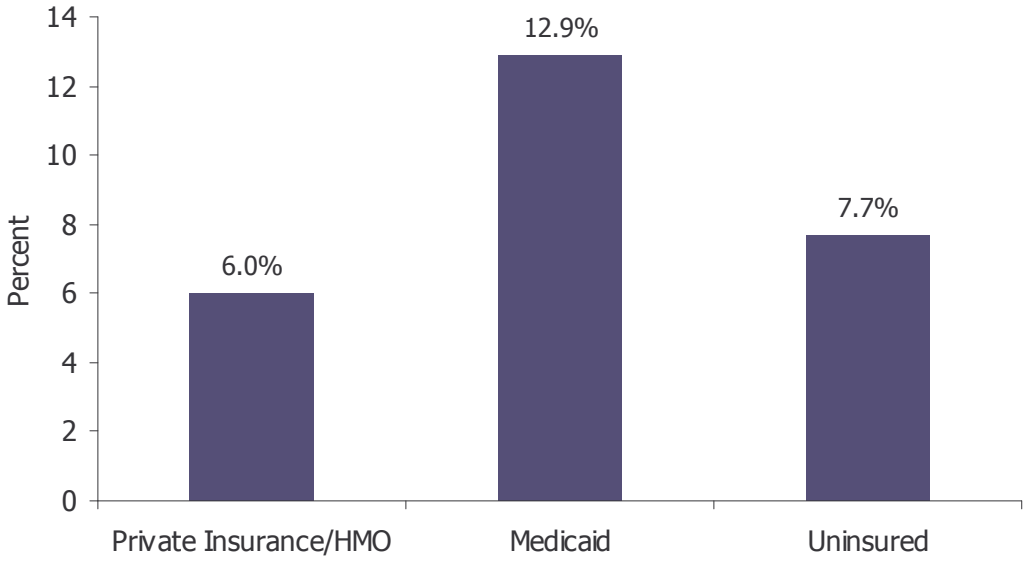
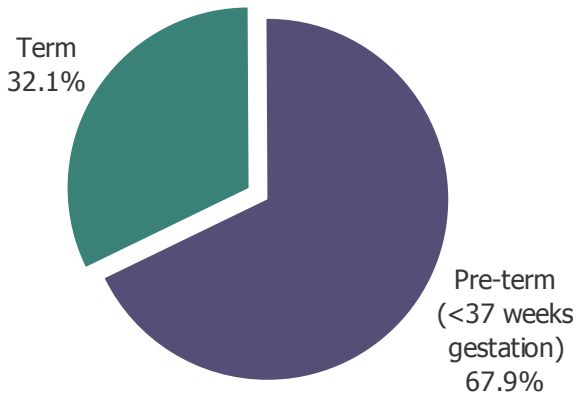


Figure 31:

Prevalence of low birthweight by gestational age, 2005 MI PRAMS



Low Birthweight

Figure 32:

Prevalence of low birthweight by pregnancy intention

2005 MI PRAMS

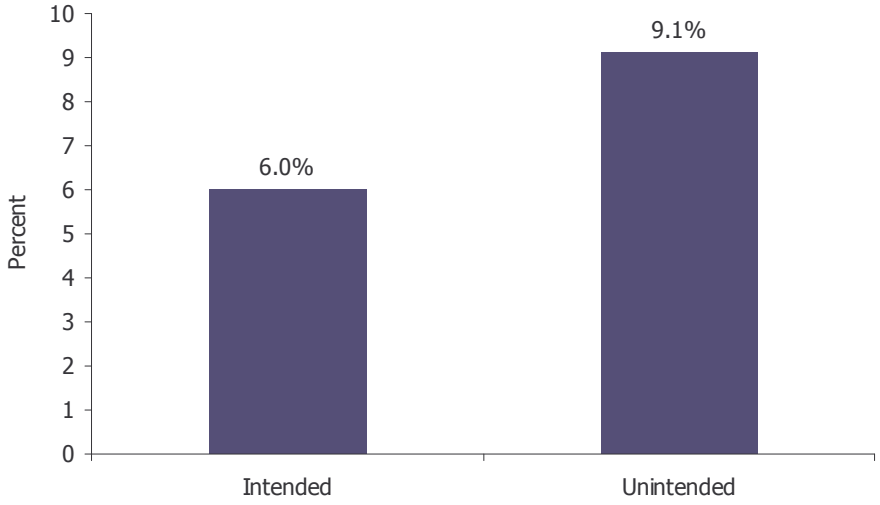
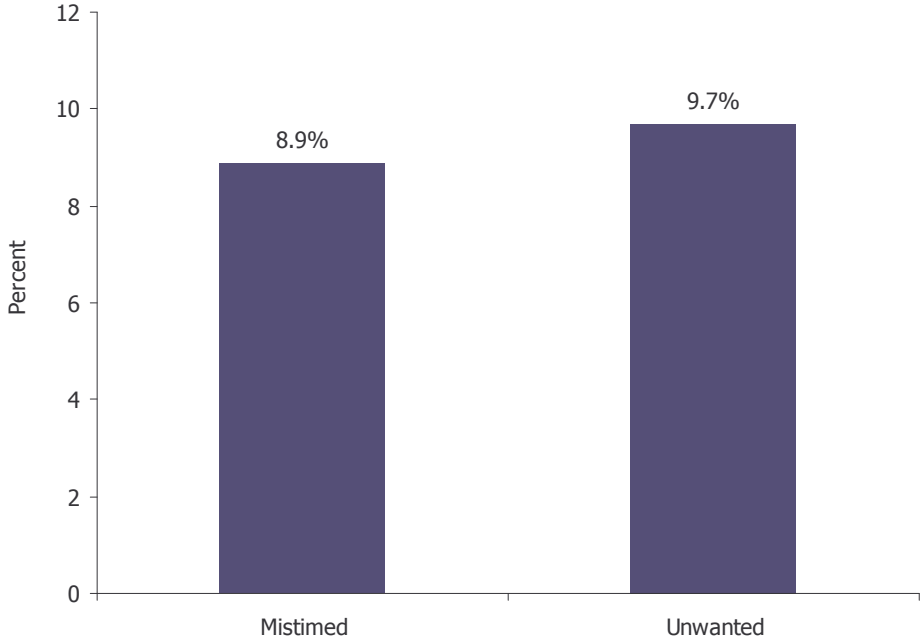


Figure 33:

Prevalence of low birthweight by pregnancy intention type,

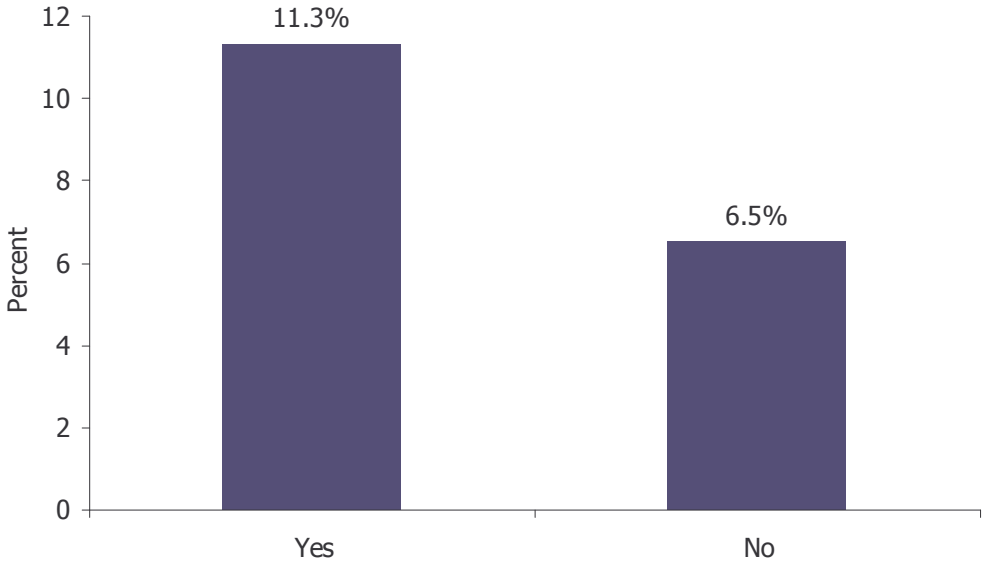
2005 MI PRAMS



Low Birthweight

Figure 34:

Prevalence of low birthweight by smoking status during pregnancy, 2005 MI PRAMS



Prenatal Care

Definition:

Several questions in the PRAMS questionnaire are devoted to the topic of prenatal care. The first question ascertains when care was initiated.

> *Question #16: How many weeks or months pregnant were you when you had your first visit for prenatal care? (Do not count a visit that was only for a pregnancy test or only for WIC [the special supplemental nutrition program for Women, Infants, and Children].)*
>
> *_weeks*
> *_months*
> *_ I did not go for prenatal care*

Women who indicated that they entered prenatal care by the twelfth week (by the end of the third month) of their pregnancy were coded as initiating care in the first trimester. Those who entered care between the thirteenth and twenty-fourth week (fourth through sixth month) of their pregnancy were coded as entering care in the second trimester. Women entering PNC after their twenty-fourth week (seventh month), entered care in their third trimester. Women who were coded as having 'No PNC' indicated they did not go for prenatal care during their pregnancy. Women surveyed for PRAMS were also asked about their satisfaction with the time they entered care.

> *Question #17: Did you get prenatal care as early in your pregnancy as you wanted?*
>
> *_No*
> *_Yes*
> *_I did not want prenatal care*

Women who responded 'No' were said to have entered care later than they desired and those who answered 'Yes' as early as they desired. Those women who entered PNC after their first trimester and who entered later than they desired were asked to identify barriers they felt prevented them from obtaining care when they desired.

> *Question #18: Here is a list of problems some women can have getting prenatal care. For each item, circle Y (Yes) if it was a problem for you during your most recent pregnancy or circle N (No) if it was not a problem or did not apply to you.*
>
> *_I couldn't get an appointment when I wanted one*
> *_ I didn't have enough money or insurance to pay for my visits*
> *_ I had no way to get to the clinic or doctor's office*
> *_ I couldn't take time off from work*
> *_The doctor or my health plan would not start care as early as I wanted*
> *_ I didn't have my Medicaid card*
> *_ I had no one to take care of my children*
> *_I had too many other things going on*
> *_I didn't want anyone to know I was pregnant*
> *_Other*

Information on method of payment for care, among women who obtained care, was gleaned from responses to question #19:

Question# 19: How was your prenatal care paid for?
_Medicaid or Medicaid HMO
_Personal Income (cash, check, or credit card)
_Health insurance or HMO
_Other

Information regarding health education during prenatal care visits was derived from question #20, which asked women to indicate the topics they discussed with a healthcare professional during any of their visits.

Question #20: During any of your prenatal care visits, did a doctor, nurse, or health care worker talk with you about any of the things listed below? (Please count only discussions, not reading materials or videos)
_How smoking during pregnancy could affect your baby
_Breastfeeding your baby
_How drinking alcohol during pregnancy could affect your baby
_Using a seatbelt during your pregnancy
_Birth control methods to use after your pregnancy
_Medicines that are safe to take during your pregnancy
_How using illegal drugs could affect your baby
_Doing tests to screen for birth defects or diseases that run in your family
_What to do if your labor starts early
_Getting your blood tested for HIV (the virus that causes AIDS)
_Physical abuse to women by their husbands or partners

Results:

In 2005, 81.5% of women reported entering prenatal care in the first trimester (Figure #35). However, women less than 18 years old and women age 18-19 years had the lowest rates of first trimester entry into prenatal care (52.2% and 63.5%, respectively) (Figure #36). Black, non-Hispanic women had the highest rate of entry into prenatal care after the first trimester or not at all (33.2%), followed by Hispanic women (30.3%) (Figure #37). Entry into prenatal care during the first trimester was directly related to maternal education; those reporting at least a college education reported the highest rate on first trimester prenatal care entry of 93.4%, while women reporting less than a high school education had the lowest rate of 61.4% (Figure #38). Furthermore, women who were Medicaid recipients and those who were uninsured had the lower rates of first trimester prenatal care entry (70.0% and 65%, respectively) when compared to women with private insurance (90.4%) (Figure #39). Women reporting an intended pregnancy entered prenatal care in the first trimester at a higher proportion than those reporting an unintended pregnancy (86.2% vs. 75.1%, respectively) (Figure #40).

The majority of women (82.1%) reported being satisfied with the time of entry into prenatal care (Table #18, page B14). However, it is known that women face barriers that may affect the time of entry into prenatal care. Among the women who entered prenatal care later than desired, 46% reported one barrier to entry, 26% reported two barriers to entry, and 14.6% reported three barriers to entry. The three most frequently cited barriers were 'could not get an earlier appointment' (11.4%), 'could not pay for appointment' (6.8%), and 'doctor/HMO would not start care earlier' (6.2%) (Figure #41).

The most common payer source for prenatal care reported by PRAMS respondents was private insurance (63.2%), followed by Medicaid (39.8%), and personal income (17.2%) (Figure #42).

Prenatal care visits present an opportunity for healthcare professionals to educate and advise women about various health and pregnancy related issues. Over 80% of women reported the following topics being discussed with them during at least one of their prenatal care visits: screening for birth defects, safe medications, HIV/AIDS testing, early labor, and breastfeeding. The least likely topics discussed were domestic abuse and seatbelt use (Figure #43).

Public Health Implications:

Although the majority of pregnant women entered prenatal care early, some of them have particular health problems and need careful care. There are still women who received later care that is of great concern to public health professionals. The top three reasons reported by women for entering prenatal care after the first trimester were: could not get an earlier appointment, could not afford appointment and 'doctor/HMO would not start care earlier'. Two of these reasons were related to health care access. Community-based initiatives to improve access to care can be effective in developing systems of care for women of childbearing age.
There is a continued need for targeted community-based educational initiatives especially to teenagers, Black, non-Hispanic women, and women with less that a high school education to recognize the early signs and symptoms of pregnancy. The collaboration between public health professional and medical providers to further explore and improve access to care in the first trimester for pregnant women remains a must.

Reference Tables: #15-#22

Prenatal Care

Figure 35:

Trimester of entry into prenatal care,

2005 MI PRAMS

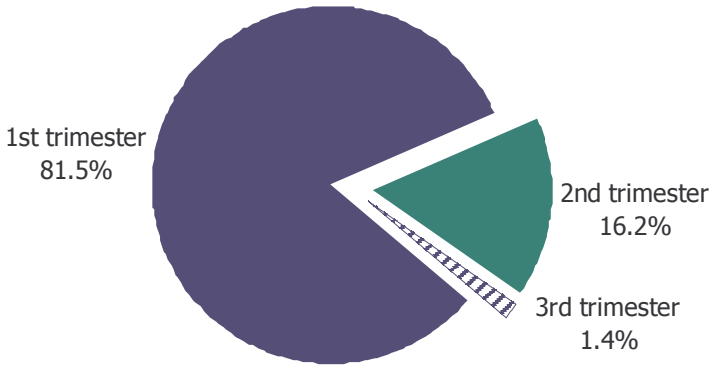
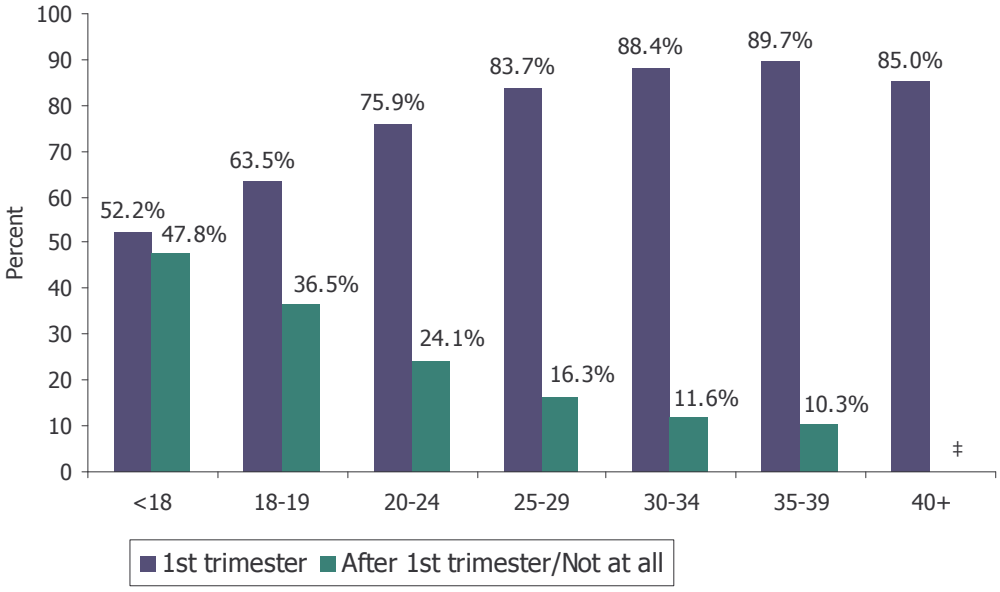


Figure 36:

Entry into prenatal care after the first trimester or not at all by maternal age,

2005 MI PRAMS

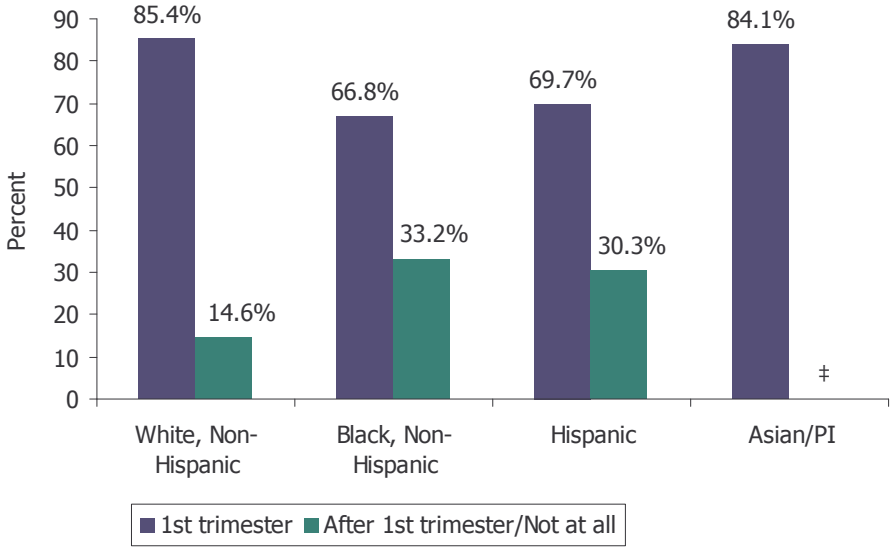


‡Data not shown due to small sample size

Prenatal Care

Figure 37:

Entry into prenatal care after the first trimester or not at all by maternal race/ethnicity, 2005 MI PRAMS

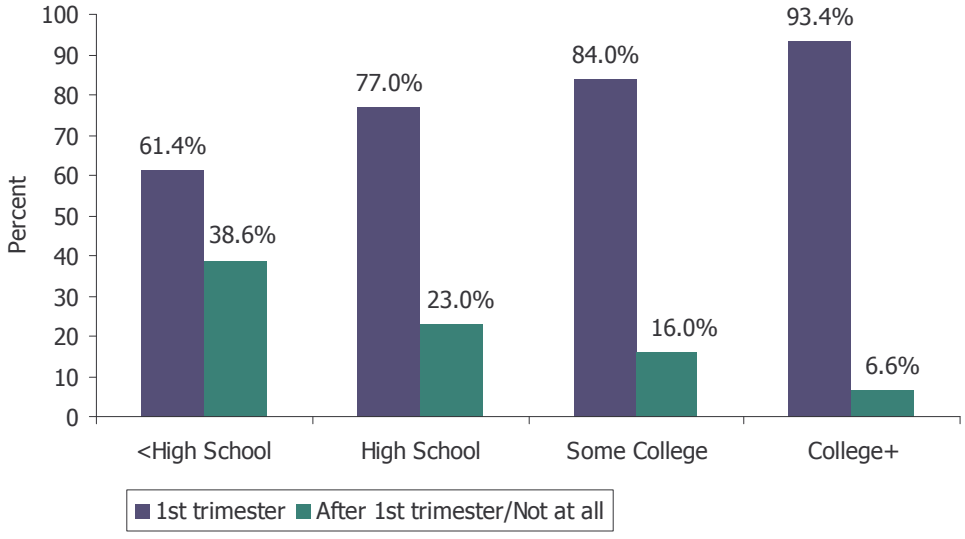


‡Data not shown due to small sample sizes

**Statistics not shown for 'American Indian/Alaskan Native' due to small sample size

Figure 38:

Entry into prenatal care after the first trimester or not at all by maternal education, 2005 MI PRAMS



Prenatal Care

Figure 39:

Entry into prenatal care after the first trimester or not at all by pre-pregnancy insurance status, 2005 MI PRAMS

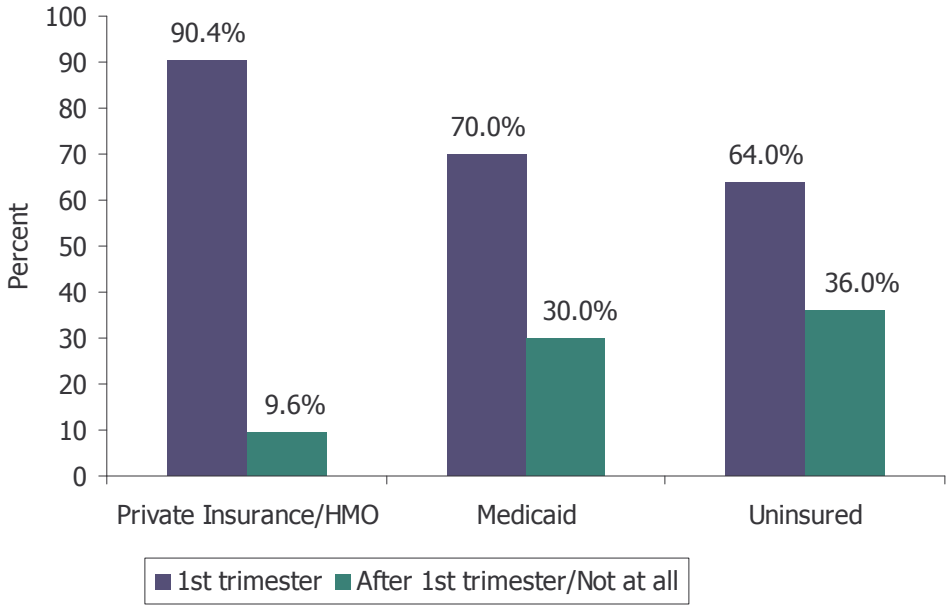
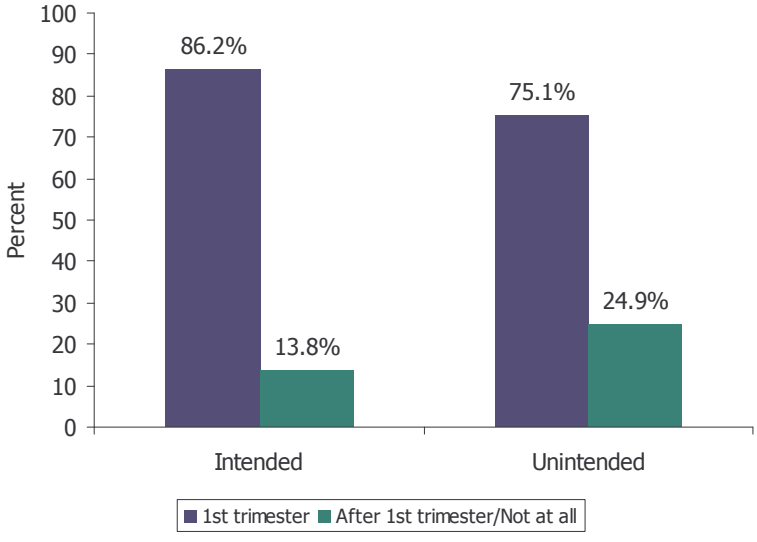


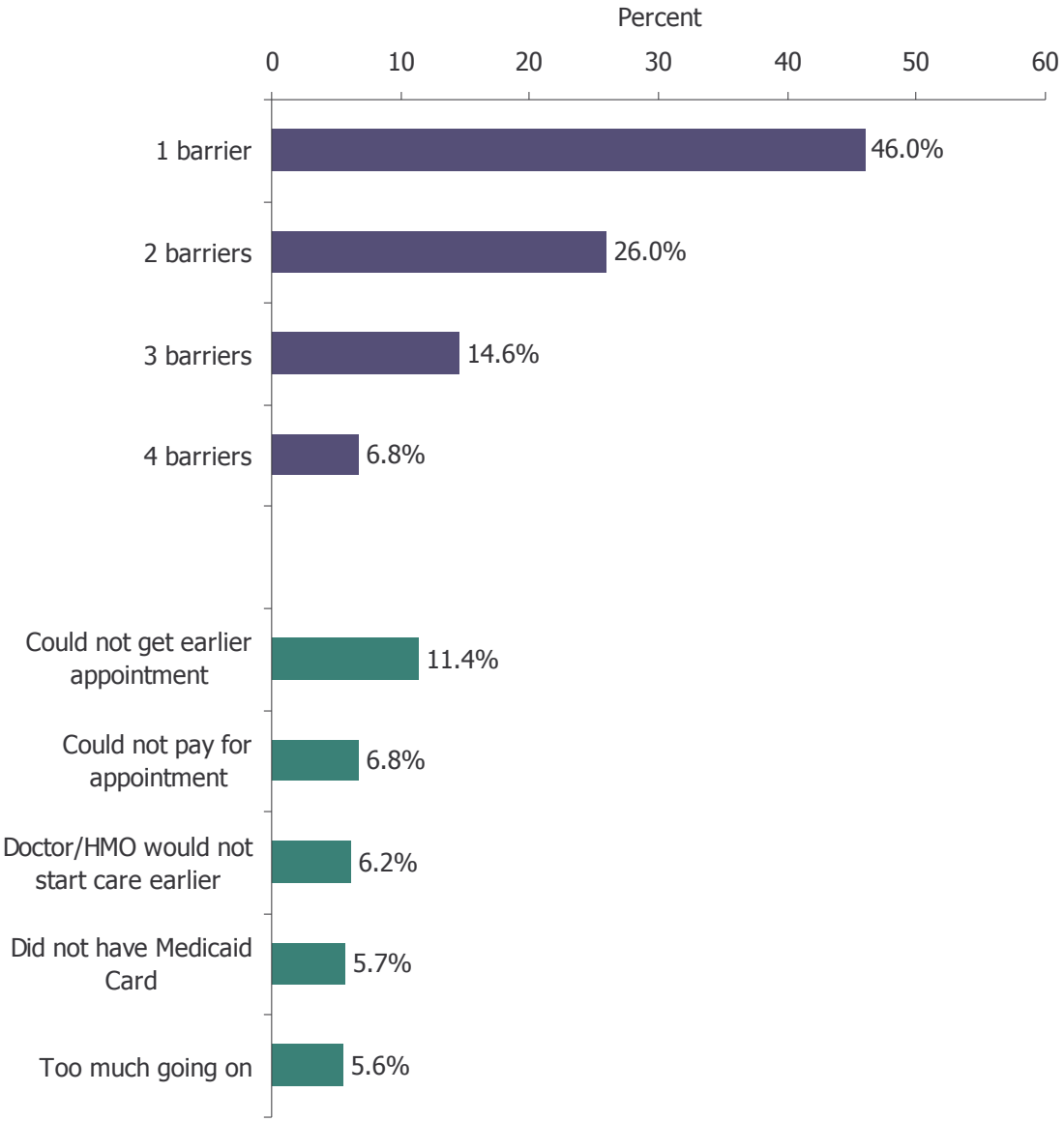
Figure 40:

Entry into prenatal care by pregnancy intention, 2005 MI PRAMS



Prenatal Care

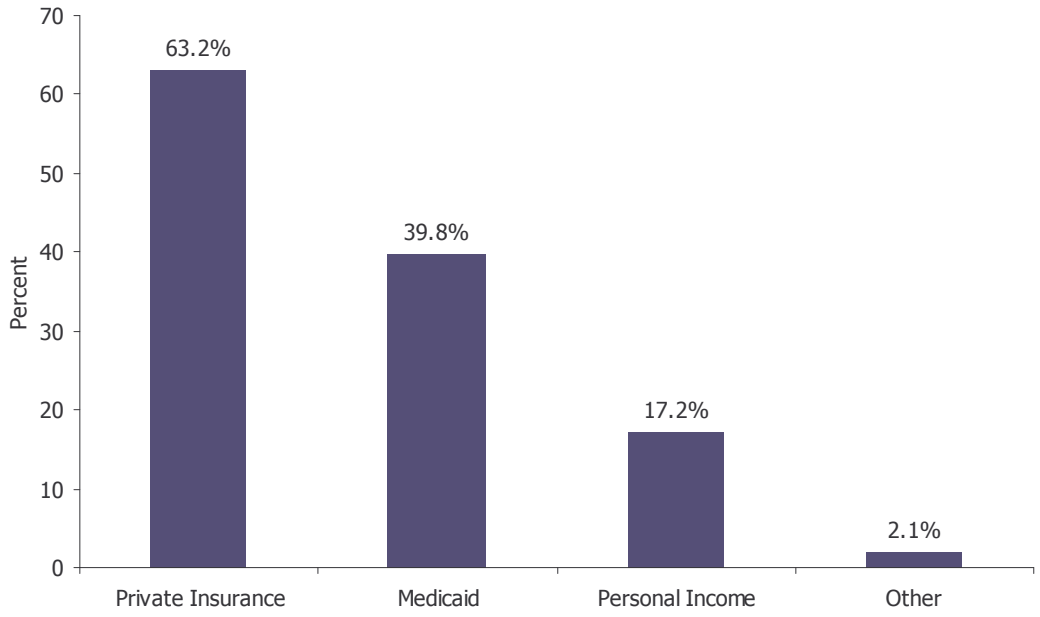
Figure 41:
Number and type of barriers to prenatal care,
2005 MI PRAMS



Prenatal Care

Figure 42:

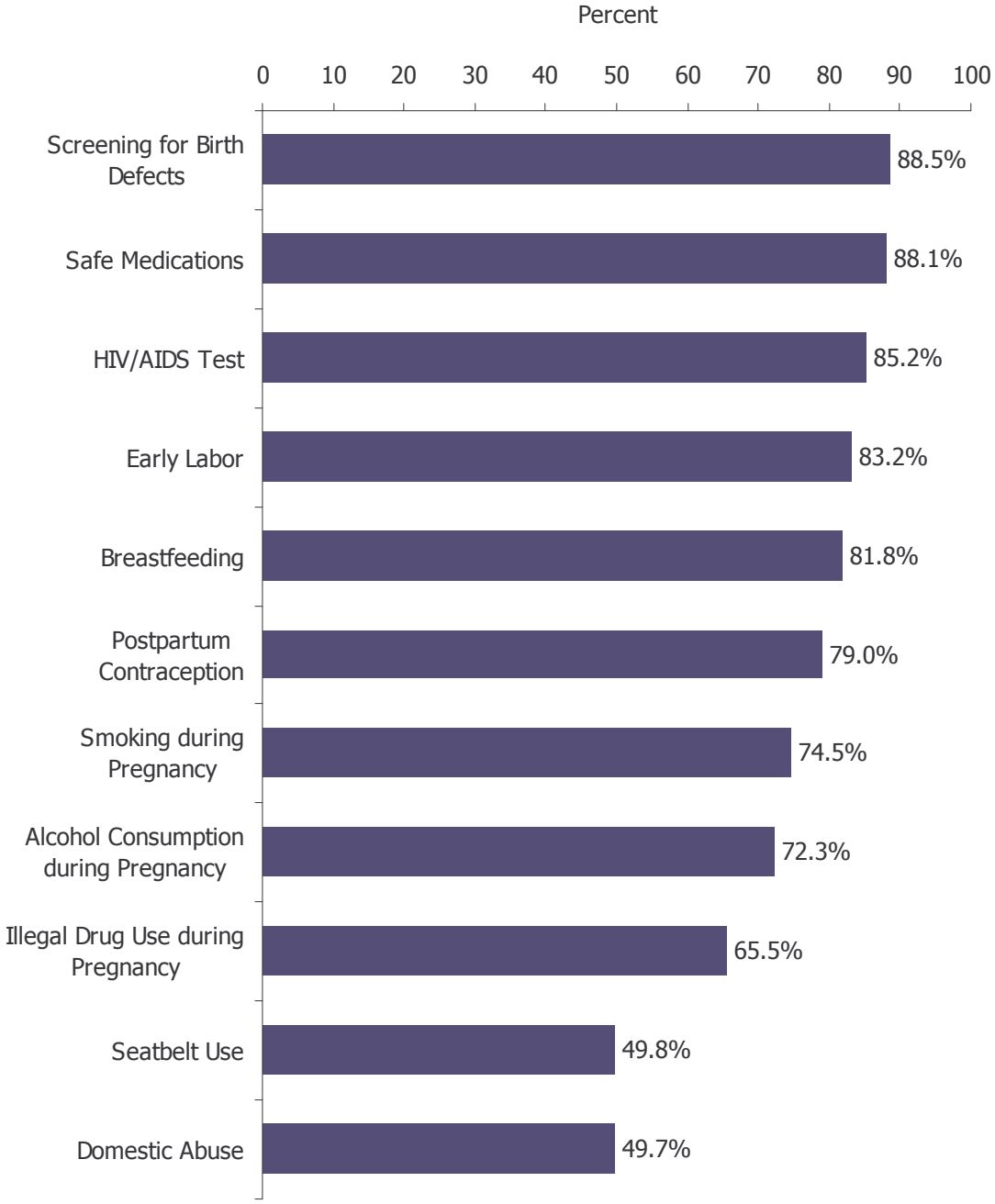
Sources of payment for prenatal care,
2005 MI PRAMS



Prenatal Care

Figure 43:

Topics discussed with a health care professional during prenatal care, 2005 MI PRAMS



Breastfeeding

Definition:

Seven questions in the Phase 4 PRAMS questionnaire address the topic of breastfeeding. The following question gathers information on breastfeeding intention:

Question #44: During your most recent pregnancy, what did you think about breastfeeding your new baby?
_I knew I would breastfeed
_I thought I might breastfeed
_I knew I would not breastfeed
_I didn't know what to do about breastfeeding

Women who responded that they knew they were going to breastfeed were considered, "intending to breastfeed." Women who responded that they were not going to breastfeed were classified as, "intending not to breastfeed." Women who either thought they may breastfeed or didn't know what to do about breastfeeding were classified as being "unsure about breastfeeding".

Information regarding breastfeeding initiation and duration was derived from questions #45 to #47, and #49.

Question #45: Did you ever breastfeed or pump breast milk to feed your new baby after delivery?
_No
_Yes

Those who answered Yes to question #45 were asked:

Question #46: Are you still breastfeeding or feeding pumped breast milk to your new baby?
_No
_Yes

Those who answered No to question #46 were asked:

Question #47: How many weeks or months did you breastfeed or pump breast milk to feed your baby?
 _# weeks
 _# months
_Less than 1 week

Question #48: What were your reasons for stopping breastfeeding?
_My baby had difficulty nursing
_Breast milk alone did not satisfy my baby
_I thought my baby was not gaining enough weight
_My baby became sick and could not breastfeed
_My nipples were sore, cracked, or bleeding
_I thought I was not producing enough milk
_I had too many household duties
_I felt it was the right time to stop breastfeeding

_I got sick and could not breastfeed
_I went back to work or school
_I wanted or needed someone else to feed the baby
_My baby was jaundiced (yellowing of the skin or whites of the eyes)
_Other

Question #49: How old was your baby the first time you fed him or her anything besides breast milk (Include formula, baby food, juice, cow's milk, water, sugar water, or anything else you feed your baby)?
 _# weeks
 _# months
_My baby was less than a week old
_I have not fed my baby anything besides breastmilk

Results:

Before delivering their baby, the majority of women planned on breastfeeding their baby (59.4%), while 16.5% thought that they may breastfeed, and 21.1% planned not to breastfeed (Figure # 45). At the time surveyed (two to six months postpartum), 37.2% of women were still breastfeeding their infant. Women who breastfed for more than one week but had concluded breastfeeding at time of survey accounted for 28.5% of the respondents, while 27.8% reported not breastfeeding at all (Figure #46).

Breastfeeding was directly correlated with maternal age and education. Approximately half of women under the age of 18 reported breastfeeding, while 75% or more of women over the age of 25 years reported breastfeeding (Figure #47). Black, non-Hispanic women were the least likely (63.9%) to report ever breastfeeding (Figure #48). Women with a college degree or higher reported the highest rate of breastfeeding at 89.4%. Conversely, women without a high school diploma reported the lowest rate at 56.6% (Figure #49).

Among women who breastfed their infants, those 25-29 years of age breastfed for an average of 6.7 weeks while those 40 years of age and older breastfed for an average of 4.3 weeks (Figure #50). Breastfeeding duration was similar among different race/ethnic groups except Asian/Pacific Islanders breastfed slightly longer (6.7) (Figure #51). In addition, women with some college education reported breastfeeding their infants for the longest period at 6.3 weeks (Figure #52). The most frequently reported barriers to breastfeeding continuation were mother 'thought was not producing enough milk' (36.1%), 'infant had difficulty nursing' (35.0%), and 'breast milk did not satisfy infant' (34.3%) (Figure #53).

Public Health Implications:

Prenatal care providers and health care professionals should continue to engage all pregnant mothers by discussing the benefits of breastfeeding. Their efforts should be mainly targeted to the groups in which breastfeeding is less prevalent such as Black and non-Hispanic, as well as women who are less than twenty, over the age of forty, and women without high school diplomas.

The increasing availability of the lactation consultants to give assistance and information to all new mothers in the hospital will be of great benefit and help them through the first crucial days.

The breastfeeding conversations throughout pregnancy, and exposure to breastfeeding in prenatal groups and other venues would help gain community acceptance for breastfeeding.

Communities can promote breastfeeding-friendly workplaces, parks, day-care centers and other facilities to promote the practice.

Postpartum care which supports breastfeeding should continue after the woman returns home from the hospital so that the most common barriers for breastfeeding can be addressed such as a mother thinking she was not producing enough milk, the infant had difficulty nursing, and the belief that breast milk alone did not satisfy the infant (32.5%).

Reference Tables: #23- #28

Breastfeeding

Figure 45:

Pre-delivery breastfeeding planning,

2005 MI PRAMS

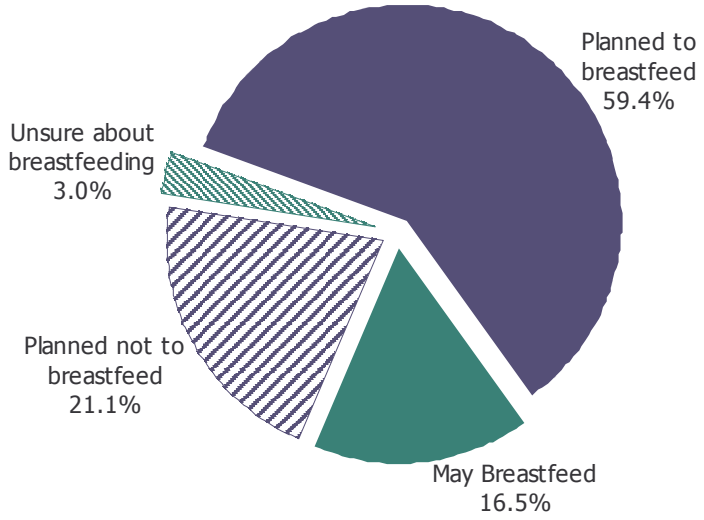
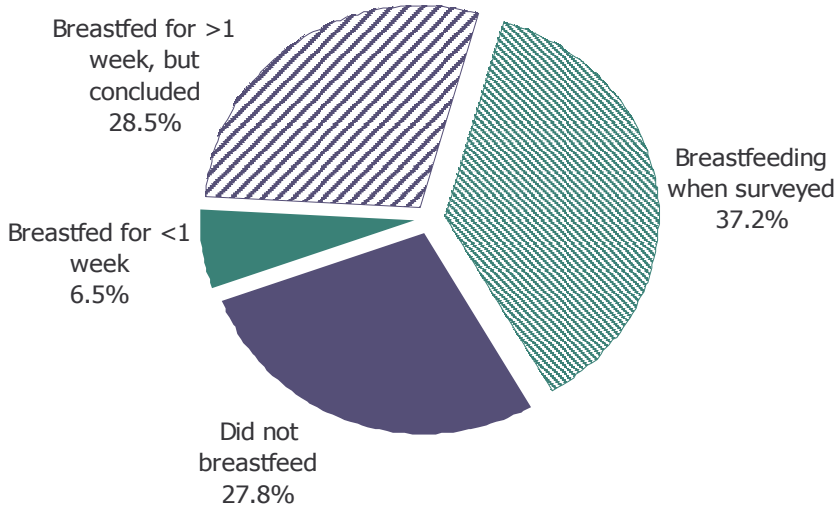


Figure 46:

Prevalence of breastfeeding behavior,

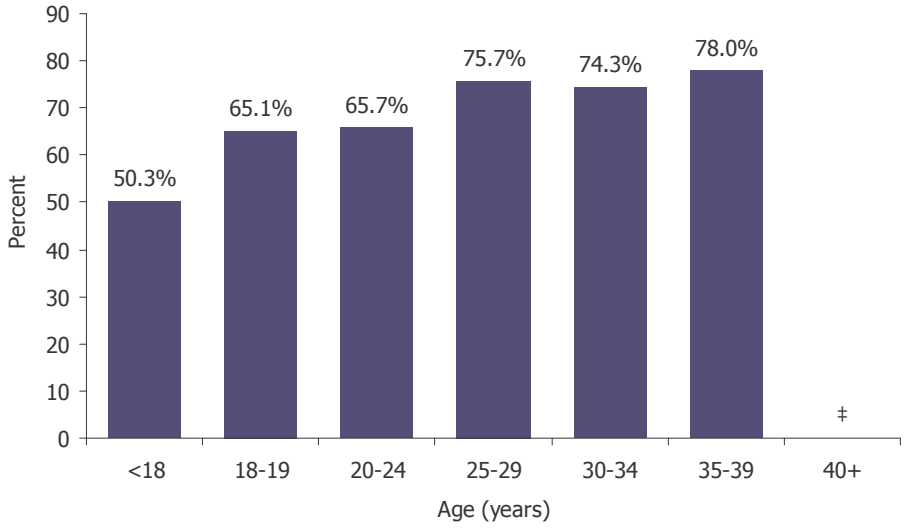
2005 MI PRAMS



Breastfeeding

Figure 47:

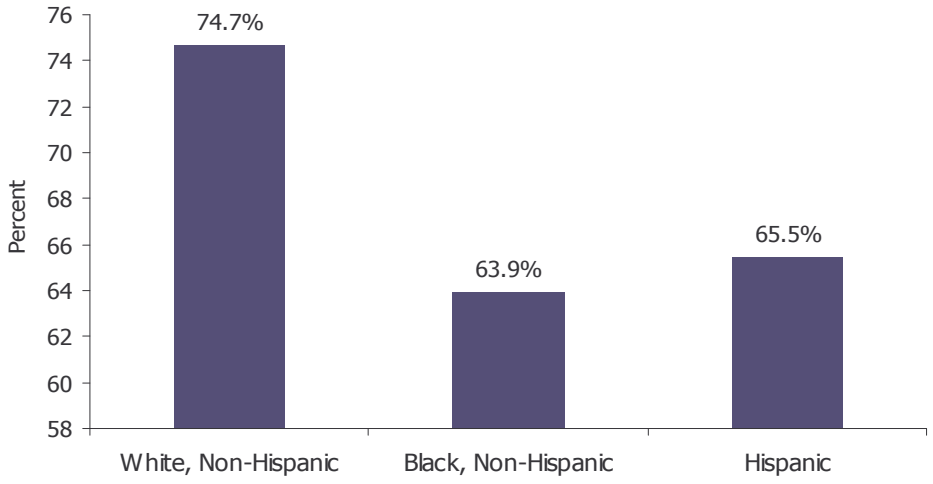
Prevalence of women who breastfed ever by maternal age,
2005 MI PRAMS



‡Data not shown due to small sample sizes

Figure 48:

Prevalence of women who breastfed ever by maternal race,
2005 MI PRAMS



**Statistics not shown for 'American Indian/Alaskan Native ' and 'Asian/PI' due to small sample size

Breastfeeding

Figure 49:

Prevalence of women who did breastfed ever by maternal education,

2005 MI PRAMS

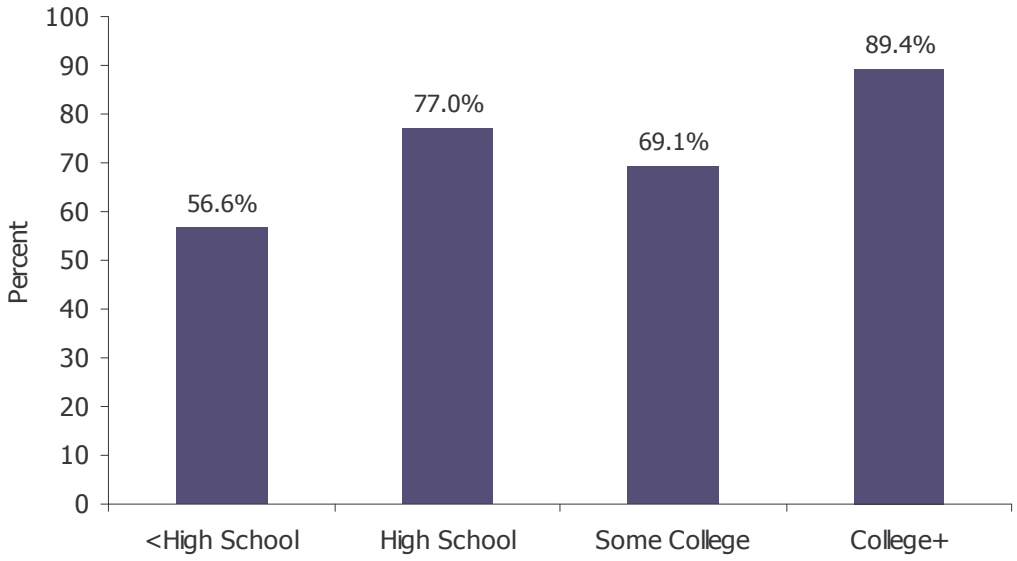
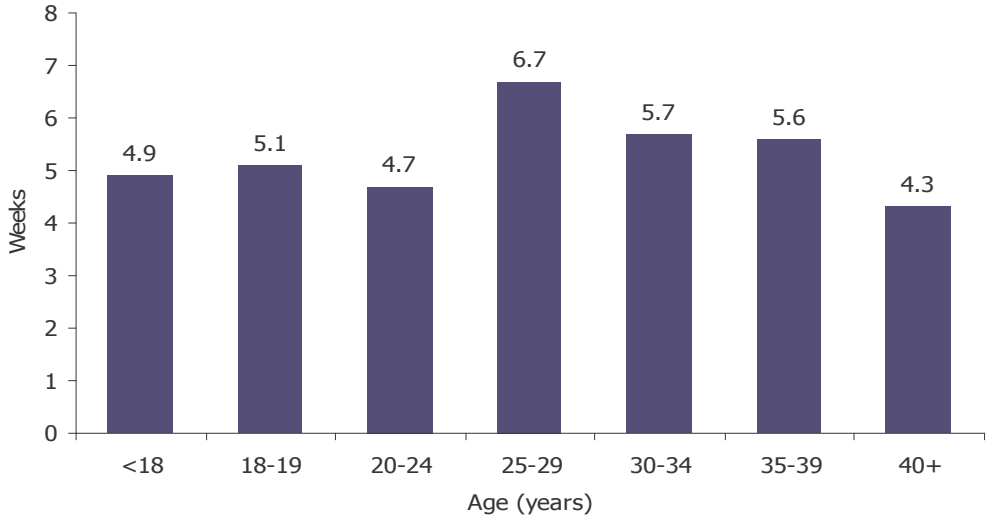


Figure 50:

Average breastfeeding duration, among women who breastfed for longer than a week, but discontinued breastfeeding before surveyed (2 to 4 months after delivery) by maternal age,

2005 MI PRAMS



Breastfeeding

Figure 51:

Average breastfeeding duration, among women who breastfed for longer than a week, but discontinued breastfeeding before surveyed, by maternal race/ethnicity,

2005 MI PRAMS

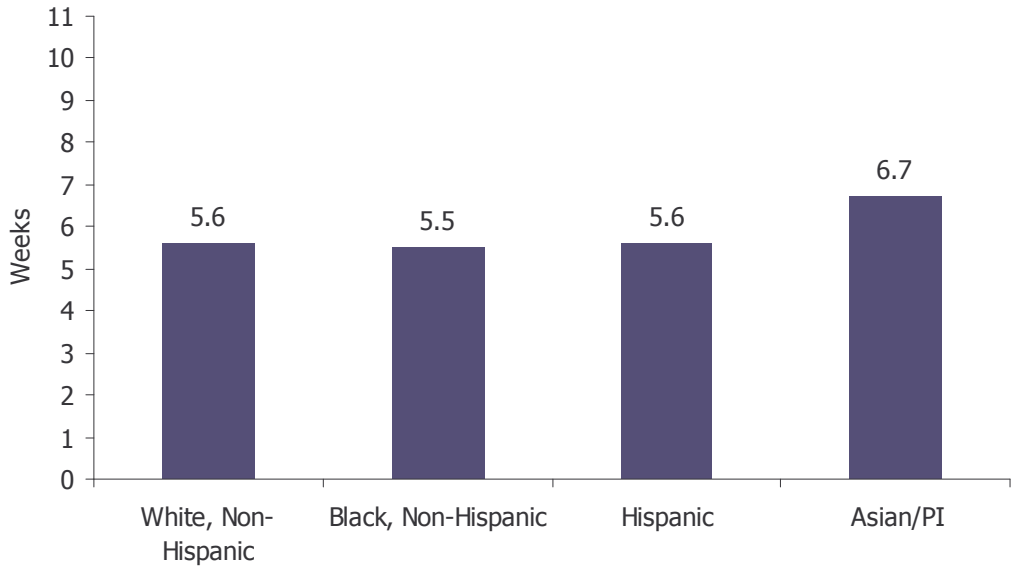
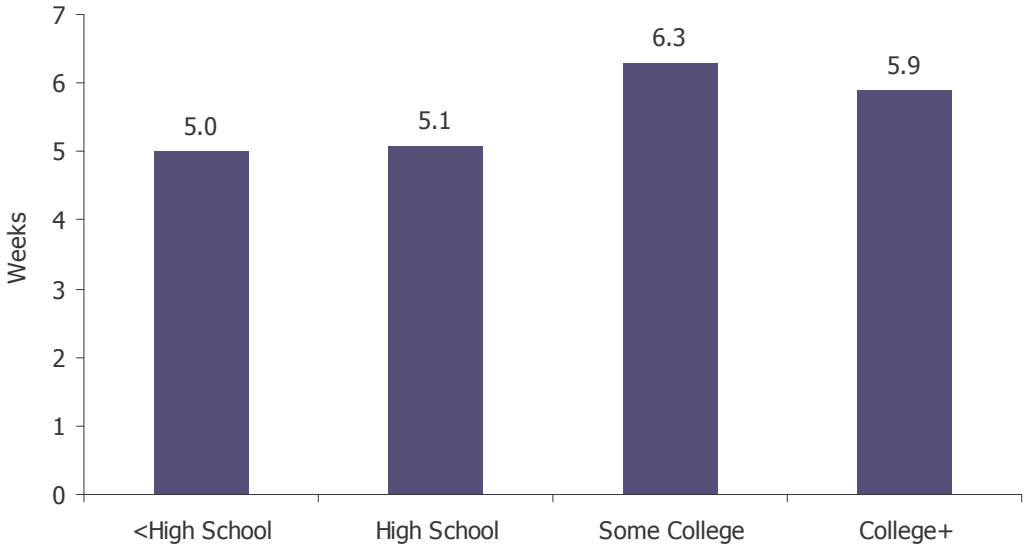


Figure 52:

Average breastfeeding duration, among women who breastfed for longer than a week, but discontinued breastfeeding before surveyed, by maternal education,

2005 MI PRAMS

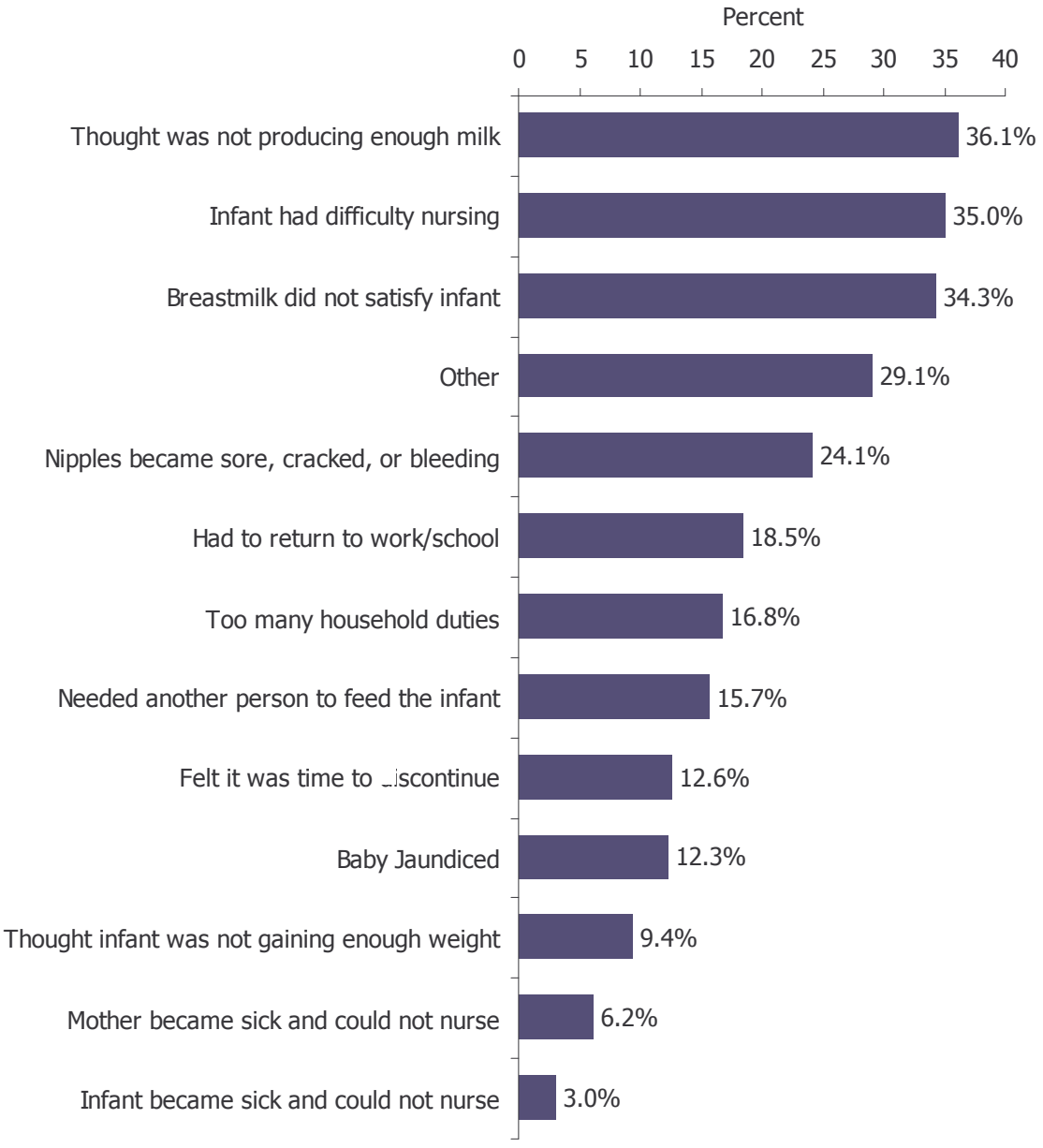


Breastfeeding

Figure 53:

Barriers to breastfeeding continuation among women who breastfed for longer than a week, but discontinued breastfeeding before surveyed,

2005 MI PRAMS



Substance Abuse: Tobacco

Definition:

An initial question, question #25, was asked to differentiate women who have recently smoked and women who had not.

Question #25: Have you smoked at least 100 cigarettes in the past 2 years?
_No
_Yes

Women who answered 'No' to question #25 skipped the rest of the maternal smoking questions. Women who answered 'Yes' to question #25 were asked the following three questions:

Question #26: In the 3 months before you got pregnant, how many cigarettes did you smoke on an average day? (a pack has 20 cigarettes)
_41 cigarettes or more
_21 to 40 cigarettes
_11 to 20 cigarettes
_6 to 10 cigarettes
_1 to 5 cigarettes
_Less than 1 cigarette
_None (0 cigarettes)

Question #27: In the last 3 months of your pregnancy, how many cigarettes did you smoke on an average day?
_41 cigarettes or more
_21 to 40 cigarettes
_11 to 20 cigarettes
_6 to 10 cigarettes
_1 to 5 cigarettes
_Less than 1 cigarette
_None (0 cigarettes)

Question #28: How many cigarettes or packs of cigarettes do you smoke on an average day now?
_41 cigarettes or more
_21 to 40 cigarettes
_11 to 20 cigarettes
_6 to 10 cigarettes
_1 to 5 cigarettes
_Less than 1 cigarette
_None (0 cigarettes)

A nonsmoker is defined as a woman who was not smoking during either period of time including women who answered no to question #25. A smoker who quit was a woman who indicated that she smoked during the initial time period, but was not smoking during the second time period. A smoker (reduced # cigarettes) was a woman who indicated that she smoked during the initial time period, but reduced the number of cigarettes in the second period. A smoker (# cigarettes same or more) is defined as a woman who indicated that she smoked during the initial time period, but maintained or increased the number cigarettes in the second period. Nonsmoker

who began smoking was a woman who reported not smoking during the first time period, but who indicated smoking in the second. When analyzing women who smoked in the last three months of their pregnancy, women who indicated that they did not smoke then or who indicated that they did not smoke at all were categorized as not smoking in the last three months of their pregnancy. Women who reported smoking cigarettes, regardless of the amount, were classified as smokers. Smoking behaviors were compared as such: during pregnancy with behavior before pregnancy, postpartum behavior with smoking during pregnancy, or postpartum behavior with pre-pregnancy behavior.

Results:

A high percentage of PRAMS respondents reported not smoking prior to pregnancy (71.3%). Among the women who reported smoking prior to pregnancy, 12.9% had quit, 10.0% had reduced the number of cigarettes smoked, and 5.8% smoked the same or more cigarettes (Figure #55). Maternal age was directly related to prevalence of smoking in the last three months of pregnancy. Women less than 18 years of age had the highest rate of 34.1%, while women age 35-39 years had the lowest rate of 10.4% (Figure #56). White, non-Hispanic women were the most likely to report smoking in the last three months of pregnancy (11.0%) compared to Black, non-Hispanic women (9.6%). The numbers for Hispanics, Asian/Pacific Islanders, and American Indians were too small to report the prevalence (Figure #57). Like many of the other risk factors analyzed in this report, smoking rates had a dose-dependent inverse association with maternal education: women without a high school diploma had the highest prevalence of smoking in the last three months of pregnancy (39.1%), while women with a college degree had the lowest rate (2.0%) (Figure #58). In addition, women who were ever on Medicaid had a higher prevalence of smoking than women who were never on Medicaid (27.3% vs. 6.6%) (Figure #59).

Smoking reduction during pregnancy does not appear to be associated with a permanent decline. While the majority of women remained non-smokers during pregnancy, 13.6% reported that they smoked the same number or more cigarettes after their pregnancy when compared to their pre-pregnancy behavior. Further, the percentage of smokers who quit was reduced from 12.9% (Figure #55) during pregnancy to only 6.6% after pregnancy (Figure #60) as well as the percentage that reduced the number of cigarettes smoked.

Public Health Implications:

More than a quarter of women who delivered a live birth in 2005 smoked prior to pregnancy, with approximately 16% continuing to smoke during their pregnancy. Although the majority of women reported not smoking in the third trimester, an unacceptably high percentage of women continued to smoke.

It is well known that smoking during pregnancy has negative effects on the infant birthweight. Therefore smoking cessation programs should be offered as components of the prenatal visits as well as of the family planning visits during the preconceptional period, following the “Stages of Change” model. The cessation programs should target women found more likely to smoke such as less than 20 years of age, non-Hispanic Whites, Medicaid participants, and women with less than a high school diploma.

The risk of relapsing remains an issue. Among women surveyed, smokers who had quit during pregnancy tended to relapse during the postpartum period. Therefore, the smoking cessation programs should continually encourage the participants and thus lead to permanently quit smoking.

Reference Tables: #29- #34

[1]Prochaska JO, DiClemente CC. Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*. 1983; 51(3): 390-395.

Substance Abuse: Tobacco

Figure 55:

Prevalence of smoking behavior during pregnancy (compared with pre-pregnancy behavior), 2005 MI PRAMS

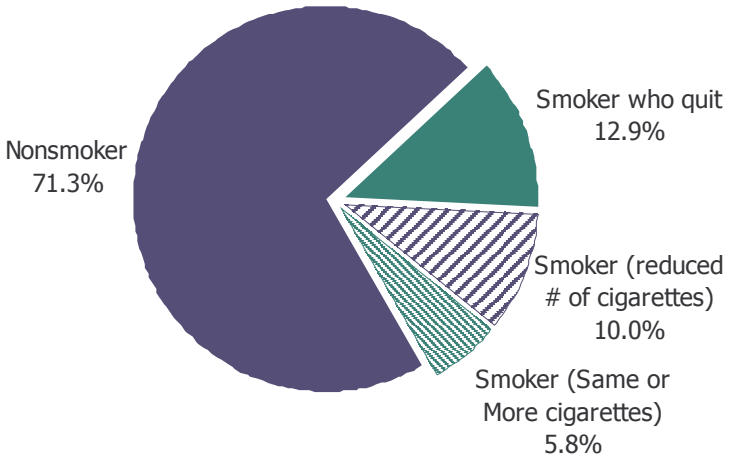
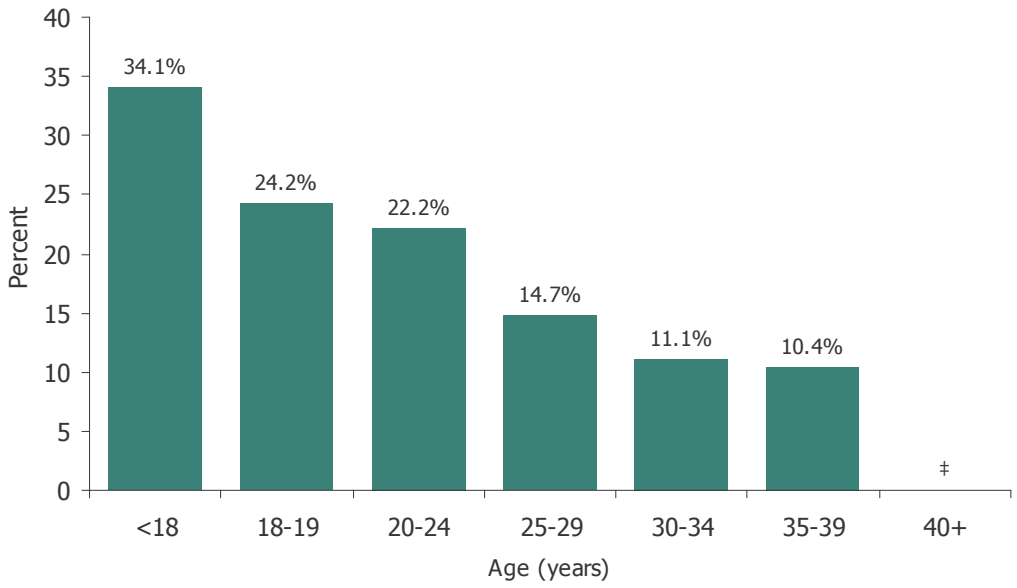


Figure 56:

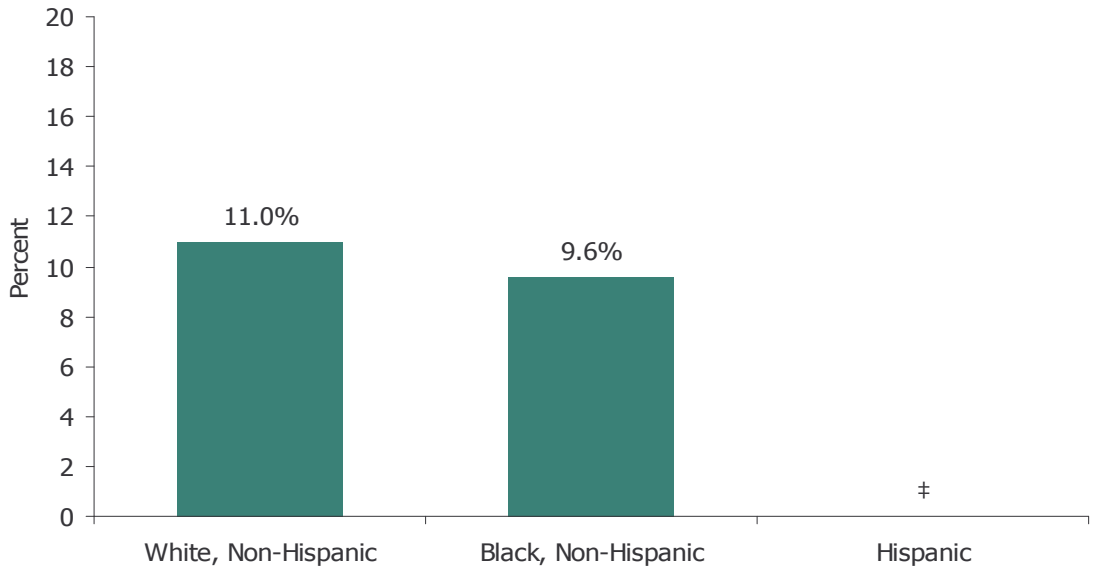
Prevalence of smoking status in the last three months of pregnancy by maternal age, 2005 MI PRAMS



Substance Abuse: Tobacco

Figure 57:

Prevalence of smoking behavior in the last three months of pregnancy by maternal race/ethnicity**, 2005 MI PRAMS

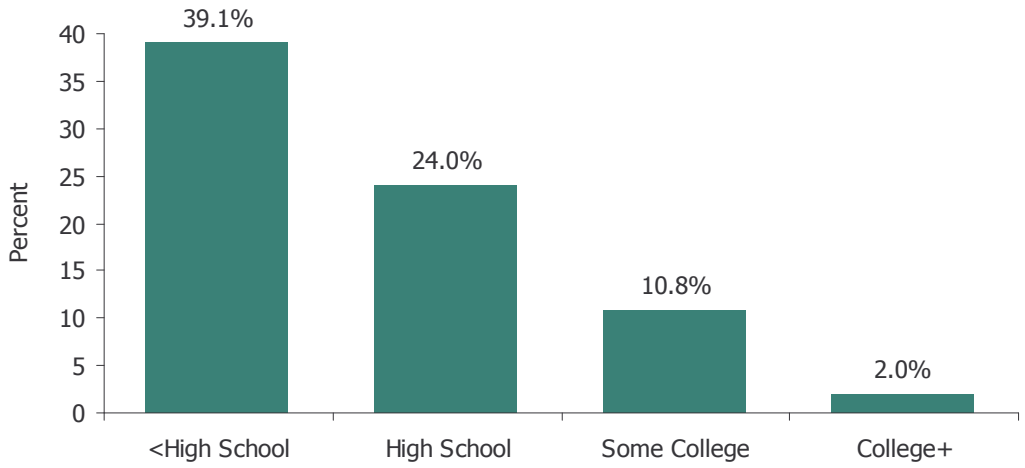


‡Data not shown due to small sample sizes

**Statistics not shown for 'American Indian/Alaskan Native ' and 'Asian/PI' due to small sample size

Figure 58:

Prevalence of smoking behavior in the last three months of pregnancy by maternal education, 2005 MI PRAMS



Substance Abuse: Tobacco

Figure 59:

Prevalence of smoking in the last three months of pregnancy by Medicaid participation, 2005 MI PRAMS

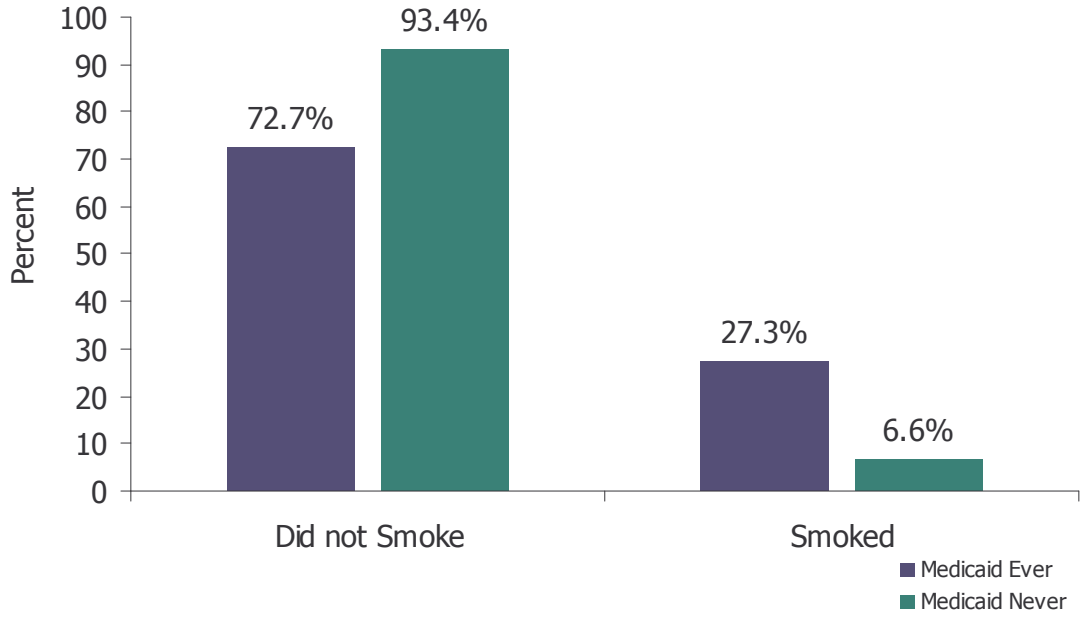
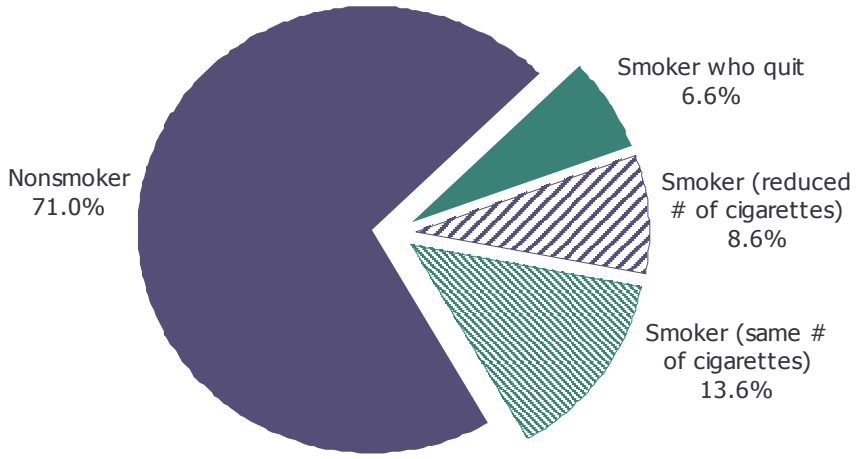


Figure 60:

Prevalence of smoking behavior in the postpartum period (compared with pre-pregnancy behavior), 2005 MI PRAMS



Alcohol Use

Definition:

Information on alcohol consumption and binge drinking are the focus of five questions on the PRAMS questionnaire. Question #29 was used to screen for drinking behavior.

Question #29: Have you had any alcoholic drinks in the past 2 years? (a drink is one glass of wine, wine cooler, can or bottle of beer, shot of liquor, or mixed drink)
_No
_Yes

Women who responded 'No' to that question skipped the rest of the alcohol consumption questions. Women who responded 'Yes' were asked the following questions:

*Question #30a: **During the 3 months before** you got pregnant, how many alcoholic drinks did you have in an average week?*
_14 drinks or more a week
_7 to 13 drinks a week
_4 to 6 drinks a week
_1 to 3 drinks a week
_Less than 1 drink a week
_I didn't drink then

*Question #30b: **During the 3 months before** you got pregnant, how many times a week did you drink 5 alcoholic drinks or more in one sitting?*
_6 or more times
_4 to 5 times
_2 to 3 times
_1 time
_I didn't have 5 drinks or more in 1 sitting
_I didn't drink then

*Question #31a: **During the last 3 months** of your pregnancy, how many alcoholic drinks did you have in an average week?*
_14 drinks or more a week
_7 to 13 drinks a week
_4 to 6 drinks a week
_1 to 3 drinks a week
_Less than 1 drink a week
_I didn't drink then

*Question #31b: **During the last 3 months** of your pregnancy, how many times a week did you drink 5 alcoholic drinks or more in one sitting?*
_6 or more times
_4 to 5 times
_2 to 3 times
_1 time
_I didn't have 5 drinks or more in 1 sitting
_I didn't drink then

Results:

During pregnancy, 42.7% of women reported being non-drinkers. Over 51% of women reported quitting drinking during pregnancy. Among the women who reported drinking during pregnancy, 3.0% reduced the number of drinks while 2.9% consumed the same number of drinks or more (Figure #61).

Public Health Implications:

More than half of women surveyed have reported drinking during pregnancy. Some reported reducing the number of drinks and some quitting. However, it is known that despite of the amount if alcohol is used during pregnancy, the fetus is exposed to the risk of having Fetal Alcohol syndrome (FAS) at birth. Preconceptional and prenatal education should continue to focus on reducing the risks of this syndrome with long-term health impact on the children development. Simple assessment tools such as the T-ACE to identify risk drinking among pregnant women in clinical settings can be used by all prenatal care providers.

The Fetal Alcohol Syndrome (FAS) program has three main components: 1) five multidisciplinary teams called Centers of Excellence diagnose children and provide initial care planning; 2) eleven community projects provide community outreach and education; and 3) training and consultation
to assist collaborative agencies in their work. This work is guided and assisted by FAS steering committees and community networking to increase awareness of FAS and the importance of its prevention, do outreach, screening and referrals to diagnostic services, and assist with providing therapeutic and social supportive services to families and children with FAS.

A state FASD Task Force was formed in 2005 to advise the program. Strategic planning was done in 2006 and the task force has met quarterly since then to implement goals and objectives of the plan. Task Force members consist of representatives from MDCH, DOE, DHS, Corrections, various advocacy organizations and parents.

Reference Tables: #35

*

1. Does it take more than it used to for you to get high? [**T**olerance] (yes, 2 points)

2. Have you become **A**ngry or **A**nnoyed when others express concern about your use? (yes, 1 point)

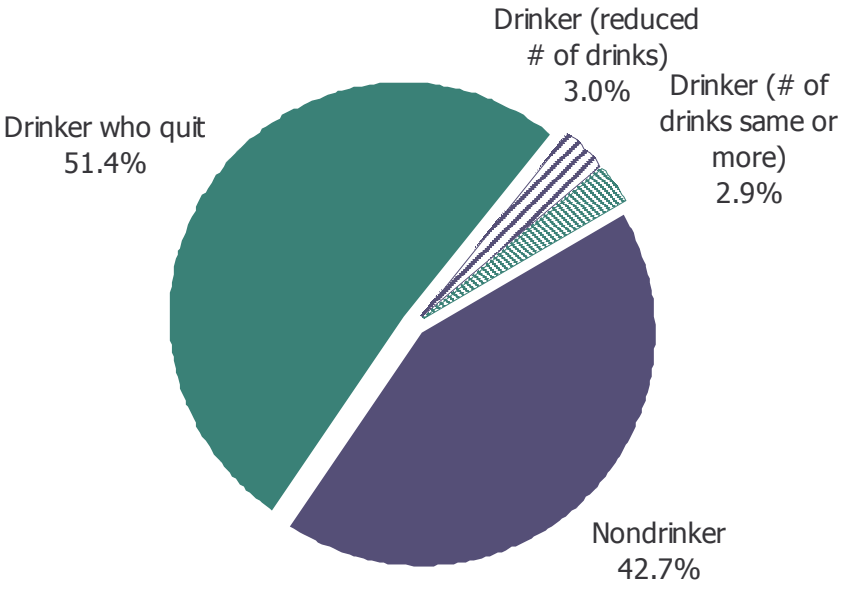
3. Have you tried to **C**ut down or quit? (yes, 1 point)

4. Have you had an **E**ye opener? (yes, 1 point)

Substance Abuse: Alcohol

Figure 61:

Prevalence of alcohol consumption during pregnancy (compared with pre-pregnancy behavior), 2005 MI PRAMS



Infant Sleep

Definition:

Information regarding infant sleeping behavior is captured by two questions: one addresses sleeping position and the other addresses bed sharing. Bed sharing is defined as infants sharing the same sleep surface as another person. Question #54, asks women whose infants were alive at the time the survey was administered:

Question #51: How do you most often lay your baby down to sleep now?
_On his or her side
_On his or her back
_On his or her stomach

Details on bed sharing practice were also asked of women whose infants were alive at the time surveyed. This topic is addressed by the following:

Question #52: How often does your new baby sleep in the same bed with you or anyone else?
_Always
_Often
_Sometimes
_Rarely
_Never

Infants were classified as "Rarely/never bed shared" if mother responded that they never/rarely slept in the same bed with someone else. Mothers, who indicated that their infant sometimes bed shared, were classified as, "sometimes bed shared." Mothers of infants classified as "Always/Often," indicated that their infant always or often slept in the same bed with someone else.

Information on the nature and source of infant sleep information was obtained by the following questions.

Question #74. During your most recent pregnancy or after your new baby was born, did you receive any information or advice on the following?
_Placing your baby in a crib or portable crib to sleep
_Placing your baby on his or her back to sleep
_Placing your baby on a firm mattress
_Placing your baby to sleep without pillows, bumper pads, plush blankets, or stuffed toys
_I did not receive any information on where, how, or on what my new baby should sleep

Respondents who selected any option except the last, were then asked:

Question #75. From whom or where did you get the information or advice that you received?
_Your mother
_Your grandmother
_Other family member or friend

_TV or radio
_A home health visitor
_Your hospital nurse
_Your obstetrician or midwife
_Your baby's doctor
_Other

Results:

During 2005, 71.0% of women reported placing their infant to sleep in their back, 16.5% on their stomach, and 12.5% on their side (Figure #62). Women 18-19 years of age were the most likely to report placing their infants to sleep on their stomach/prone (Figure #63). Black, non-Hispanic women were the least likely to report placing their infant to sleep on their back (50.4%). The prevalence of 'back sleeping' position was at or above 70% for non-Hispanic Whites and Asian/Pacific Islanders (Figure #64). The back sleeping position had the lowest prevalence among women with a high school diploma (65.5%), while women with a college degree or higher were the most likely to place their infant to sleep on its back (78.4%) (Figure #65). Women who had never been on Medicaid reported a higher proportion of placing infants in the back sleeping position when compared to women who had ever been on Medicaid (Figure #66).

Approximately 22.6% of the PRAMS respondents reported always or often bed sharing (Figure #67). Women less than 18 years of age reported the highest prevalence of always/often bed sharing (47.3%) (Figure #68). When stratified by race/ethnicity, both Asian/Pacific Islanders and Black, non-Hispanics had the highest rates of always/often bed sharing at 55.8% and 40.0%, respectively (Figure #69). Further, White, non-Hispanic women had the lowest prevalence with 16.1% indicating always/often bed sharing (Figure #70).

The overwhelming majority (93.4%) of respondents reported receiving information on placing their baby on his/her back to sleep (Figure #71). Approximately 2% reported not receiving any infant sleep related information. Among women who reported receiving infant sleep information, 66.7% reported their hospital nurse as the source of such information (Figure #72).

Public Health Implications:

The majority of mothers, regardless of demographic characteristics, placed their infants to sleep of their back. However, approximately one in four women indicated that always or often bed shared.

Women who were less likely to place their infant on their back and who should be targeted with "Back to Sleep" educational messages are women who are less than 20 years of age, Blacks, and women who had less than a HS diploma.

The "back to sleep" as well as "safe sleep" messages should continue to target the entire population of mothers with infants. MDCH convened a broadly based group in 2004 to develop a statewide, consistent, comprehensive message and strategy to inform families and caregivers about unsafe sleep practices.

Infant Safe Sleep campaign and the unified infant safe sleep recommendations were endorsed by the Governor and Governor's Children's Cabinet.

Reference Tables: #36- #39b

Infant Sleep

Figure 62:
Prevalence of infant sleep position,
2005 MI PRAMS

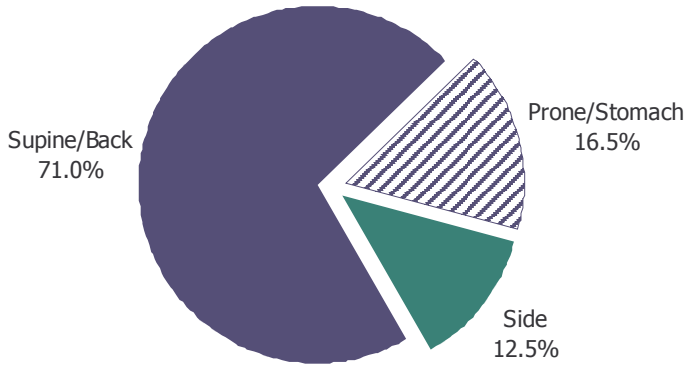
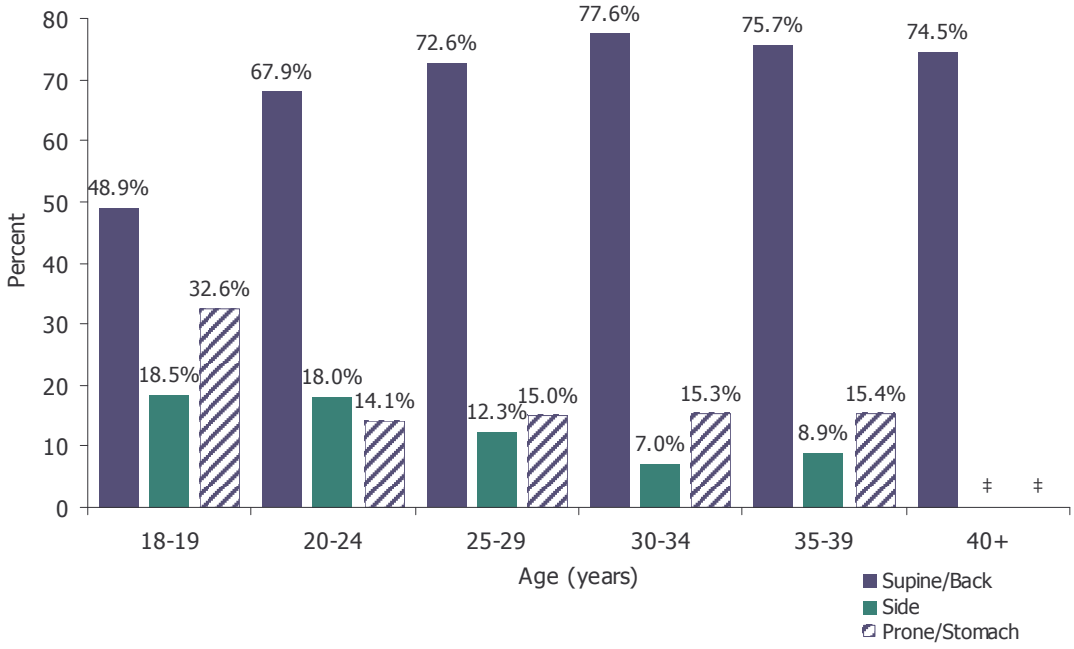


Figure 63:
Prevalence of infant sleep position by maternal age,
2005 MI PRAMS



Infant Sleep

Figure 64:

Prevalence of infant sleep position by maternal race/ethnicity,

2005 MI PRAMS

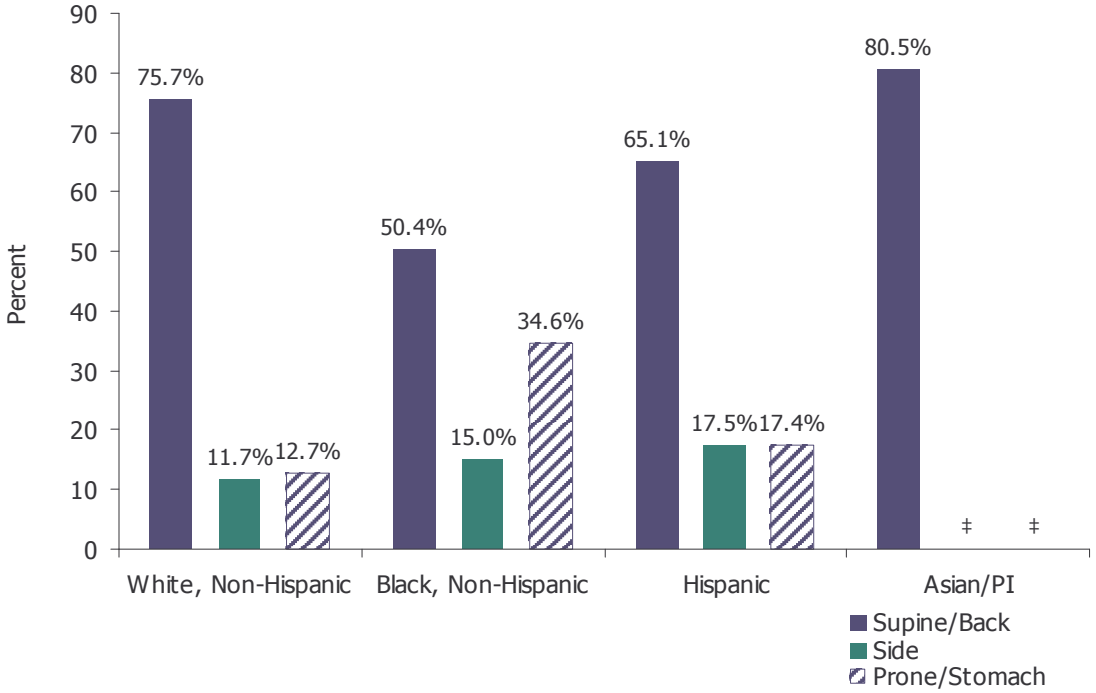
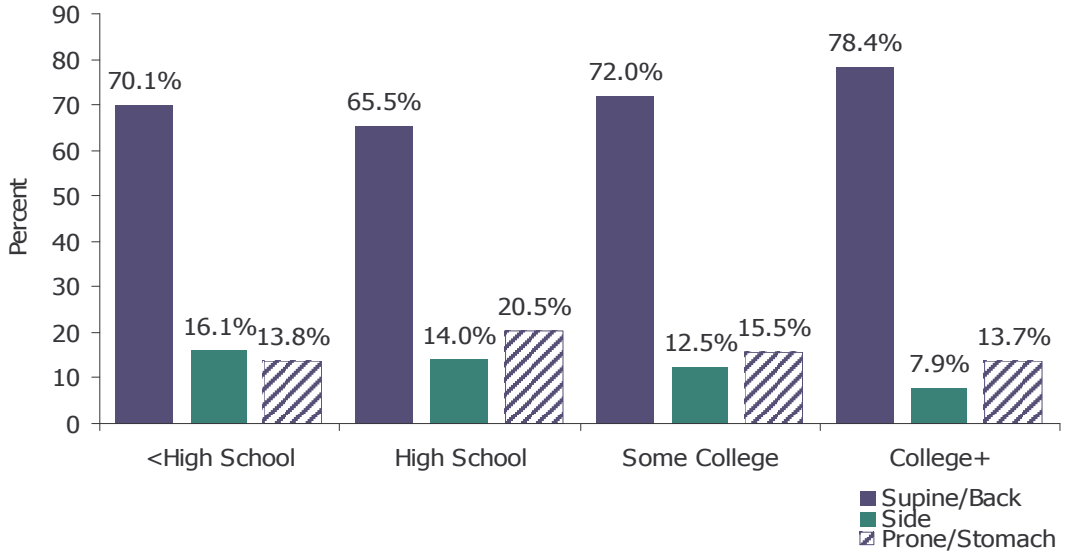


Figure 65:

Prevalence of infant sleep position by maternal education,

2005 MI PRAMS



Infant Sleep

Figure 66:

Prevalence of infant sleep position by maternal insurance status,

2005 MI PRAMS

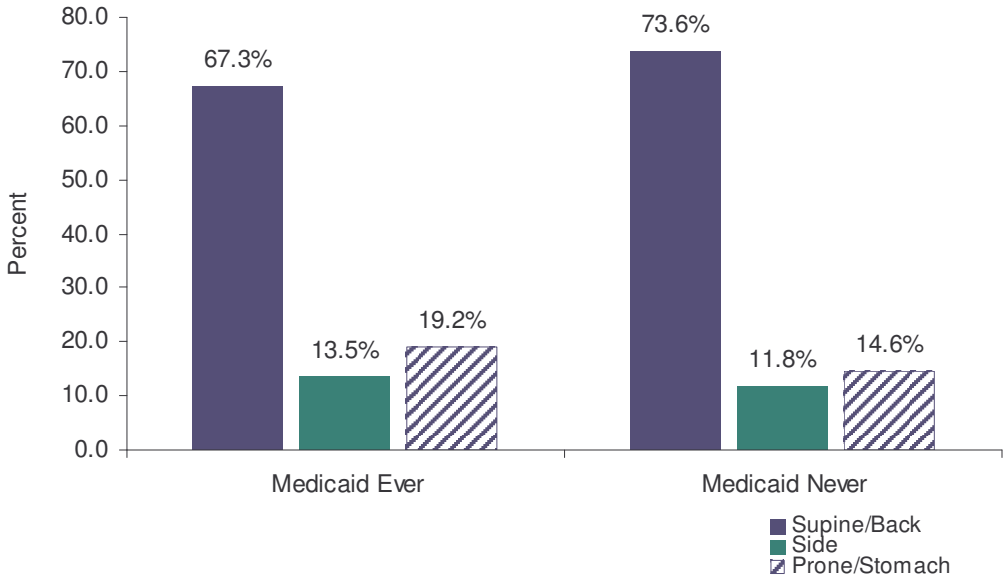
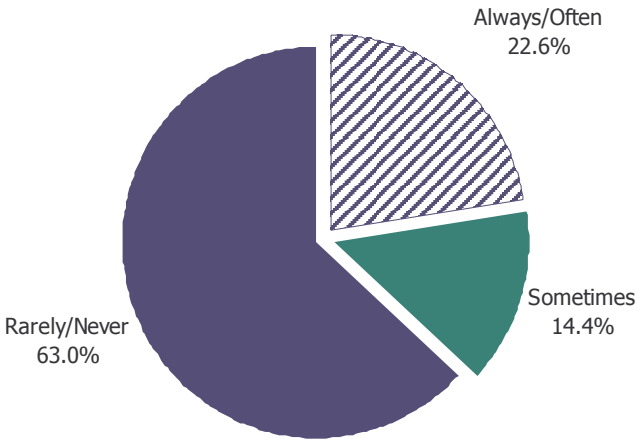


Figure 67:

Prevalence of infant bed sharing,

2005 MI PRAMS



Infant Sleep

Figure 68:

Prevalence of infant bed sharing by maternal age,

2005 MI PRAMS

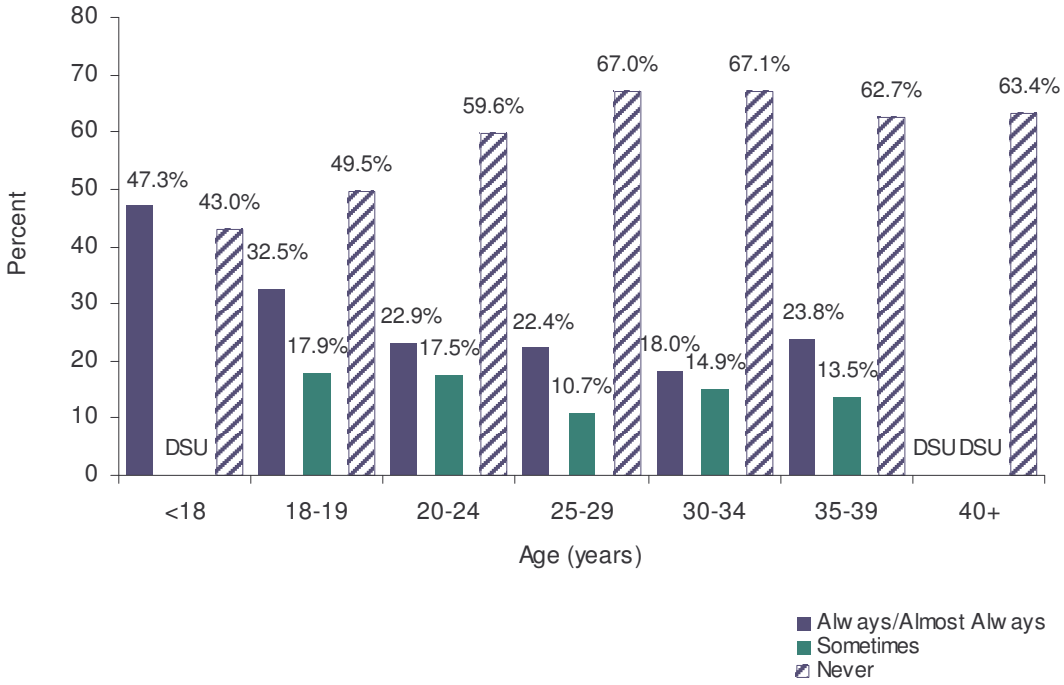
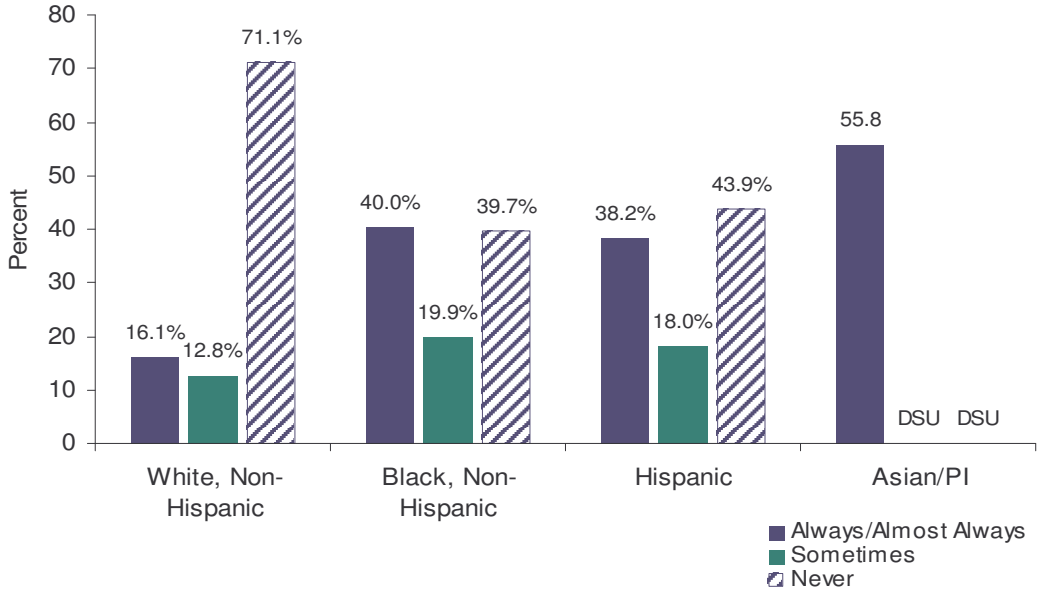


Figure 69:

Prevalence of infant bed sharing by maternal race/ethnicity,

2005 MI PRAMS



Infant Sleep

Figure 70:

Prevalence of infant bed sharing by maternal education,

2005 MI PRAMS

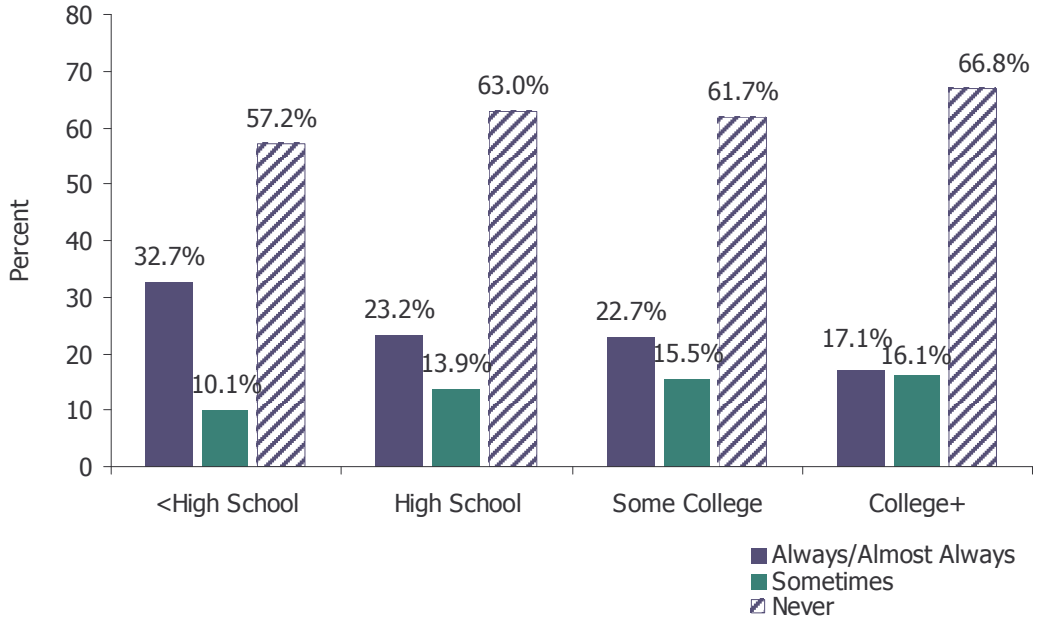


Figure 71:

Prevalence of infant sleep information,

2005 MI PRAMS

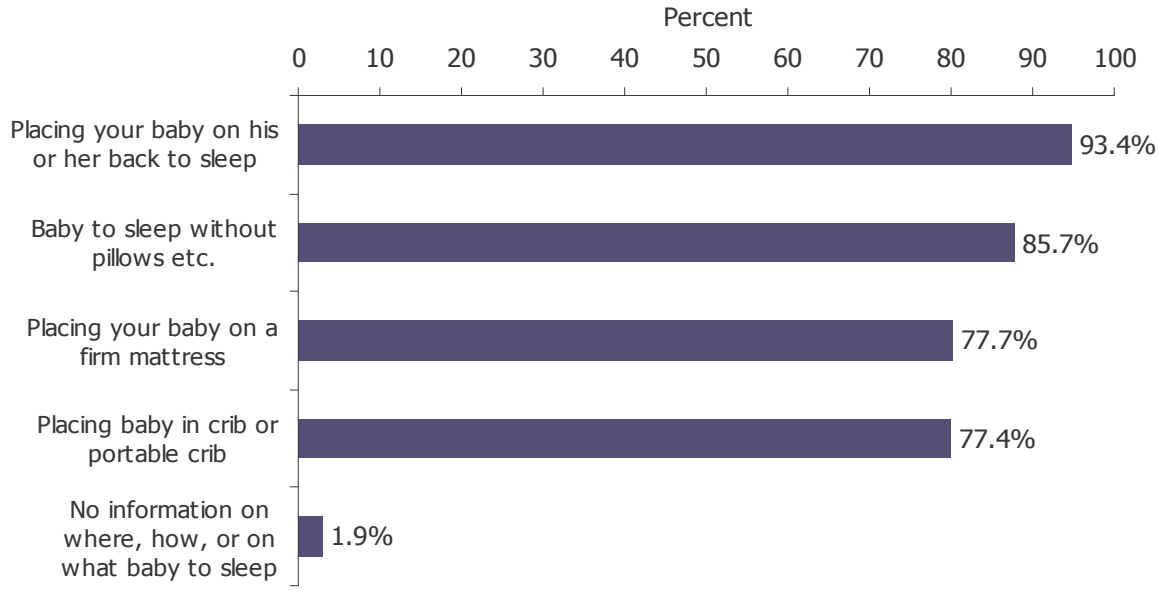
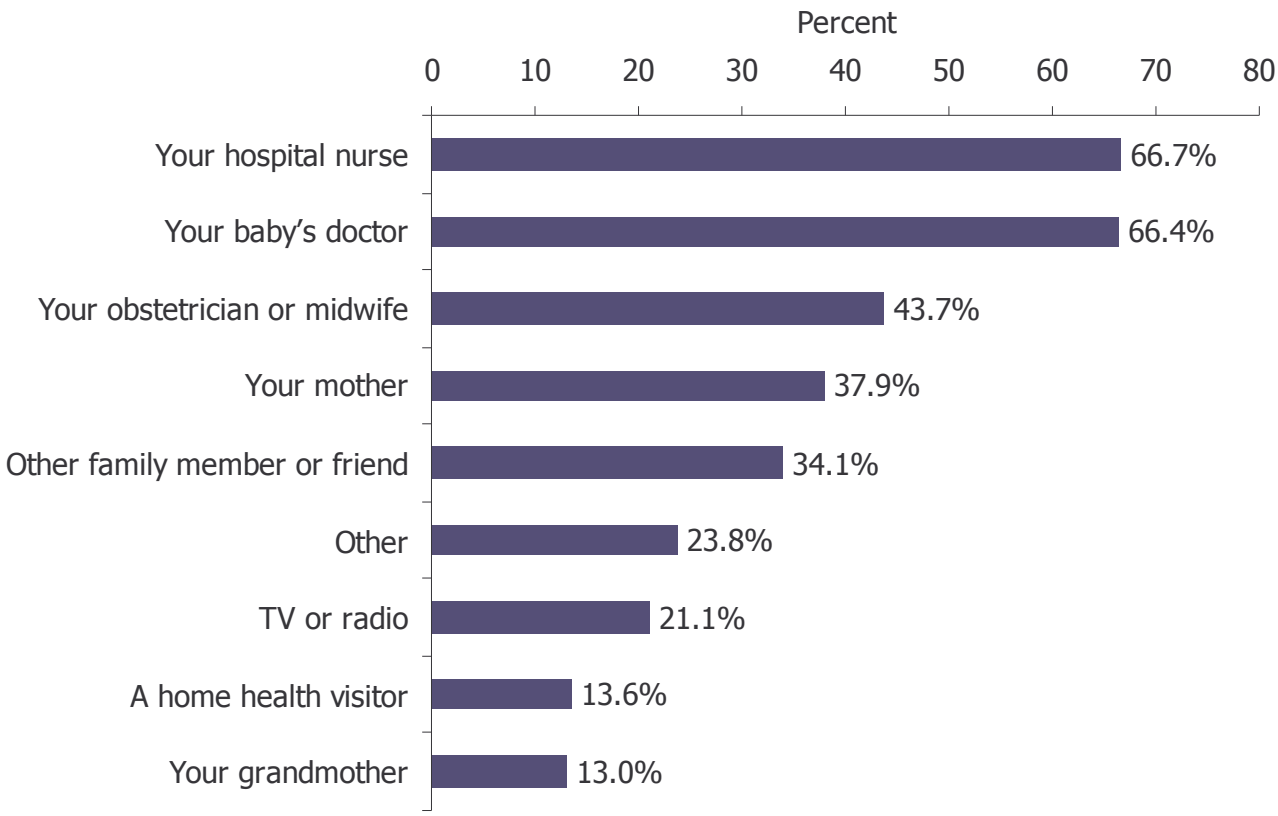


Figure 72:

Source of infant sleep information,

2005 MI PRAMS



Violence Against Women

Definition:

Information regarding abuse, both physical and verbal, was derived from six questions asked of all women surveyed for PRAMS.

Women classified as being abused prior to pregnancy responded 'Yes' to either Questions #33a or #33b, which ask:

> *Question #33a: During the 12 months before you got pregnant, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?*
> *_No*
> *_Yes*
>
> *Question #33b: During the 12 months before you got pregnant, did anyone else push, hit, slap, kick, choke, or physically hurt you in any other way?*
> *_No*
> *_Yes*

Women classified as being abused during pregnancy responded 'Yes' to either Questions #34a or #34b, which ask:

> *Question #34a: During your most recent pregnancy, did your husband or partner push, hit, slap, kick, choke, or physically hurt you in any other way?*
> *_No*
> *_Yes*
>
> *Question #34b: During your most recent pregnancy, did anyone else push, hit, slap, kick, choke, or physically hurt you in any other way?*
> *_No*
> *_Yes*

The issue of verbal abuse was addressed in question #73. Women were classified as experiencing verbal abuse or not experiencing verbal abuse depending on their response to option 'f':

> *Question #67: This question is about things that may have happened during the 12 months before your new baby was born.*
> *g. You were repeatedly called names, told you were worthless, ugly, or verbally threatened by your partner or someone important to you.*
> *_No*
> *_Yes*

Results:

Among PRAMS respondents, 6.1% reported experiencing physical abuse in the year prior to pregnancy with the woman's husband/ex-husband/partner/ex-partner being named the abuser in 59.6% of the cases (Figure #73). A similar picture was presented during pregnancy, with 3.4% of women indicating being physically abused (Figure #74). In addition, approximately 5.6% of women reported being verbally abused in the year prior to pregnancy (Figure #75).

Public Health Implications:

There is a small, yet unacceptable, percent of women who reported experiencing either physical or verbal abuse. Standardized screening tools used by providers during prenatal care would help identify women who are victims of abuse. These women can then be referred to appropriate services.

Reference Tables: #40- #44

Violence Against Women

Figure 73:

Prevalence of pre-pregnancy physical abuse and abuser,

2005 MI PRAMS

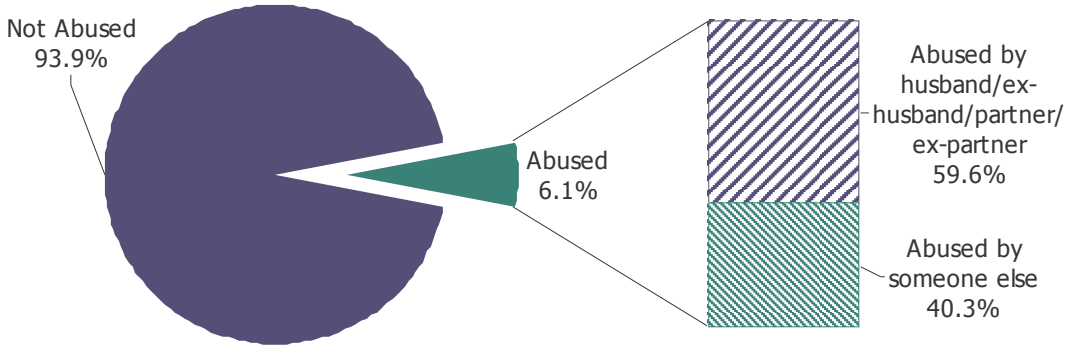
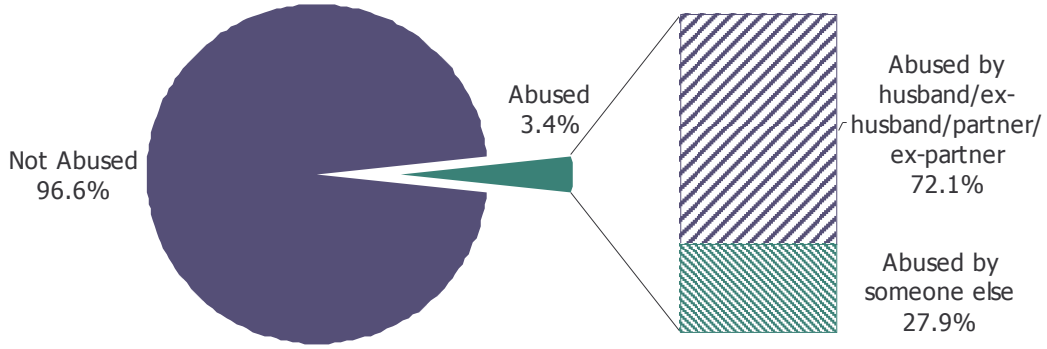


Figure 74:

Prevalence of physical abuse during pregnancy and abuser,

2005 MI PRAMS

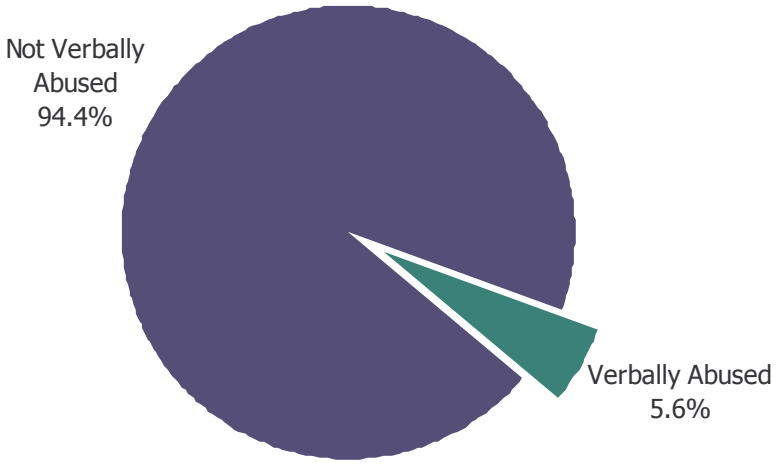


Violence Against Women

Figure 75:

Prevalence of verbal abuse in the year prior to delivery,

2005 MI PRAMS



HIV

Definition:

Treating HIV-infected pregnant women and their infants can reduce the risk for perinatal transmission by two thirds. In 1995, the US Public Health Service recommended routine HIV counseling and voluntary testing of pregnant women*. Two questions in the PRAMS questionnaire gather information on HIV counseling and testing:

> *Question #20: During any of your prenatal care visits, did a doctor, nurse, or other health care worker talk with you about any of the things listed below?*
> *j. Getting tested for HIV (the virus that causes AIDS)*
>
> *Question #21. At any time during your most recent pregnancy or delivery, did you have a test for HIV (the virus that causes AIDS)?*

Results:

In 2005, 85.2% of women reported receiving HIV counseling during prenatal care (Figure #76). Among these respondents, 73.6 reported actually being tested for HIV. Figure #77 shows that HIV testing was highest (86.4%) among women less than 20 years of age while 56.7% of their 35 years of age or more peers. Black, non-Hispanic women were more likely (92.7%) to have HIV testing done (Figure #78) while their White, non-Hispanic counterparts were least likely (62.9%). Women with less than a high school education had the highest proportion (80.4%) of HIV testing done followed by those with some college education (65.7%) and those with a college degree or higher (57.9%) (Figure #79). Women with Medicaid coverage had the highest proportion of HIV testing done (Figure #80).

Public Health Implications:

A high percent of women reported HIV counseling that is considered routine according to the US Public Health Service recommendation. When counseled in the prenatal period, about three quarter of these women go on to be tested for HIV. While these proportions are encouraging, much work still need to be done to have all women counseled and tested for HIV during the prenatal period. It is known that women will be more likely to be tested for HIV when they understand the modes of vertical transmission and the role of medication regimens in preventing transmission [Fernandez, 2000 #4]. It is important that HIV counseling be woven into a brief 'pre-test' message and made a routine component of prenatal care. This message should be aimed at all sexually active women.

* Branson B., Handsfield H., Lampe M., et al., Revised recommendations for HIV testing of adults, adolescents, and pregnant women in health-care settings. MMWR 2006; 5, RR-14.

Figure 76:

Prevalence of prenatal HIV counseling and testing,
2005 MI PRAMS

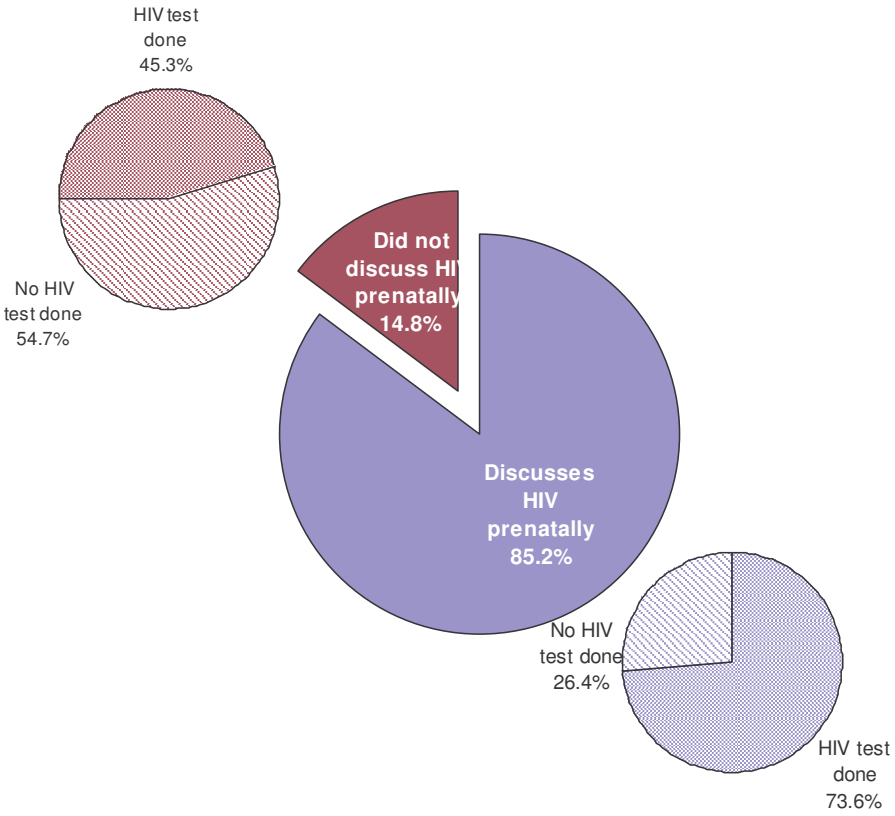


Figure 77:

Prevalence of prenatal HIV test status by maternal age,
2005 MI PRAMS

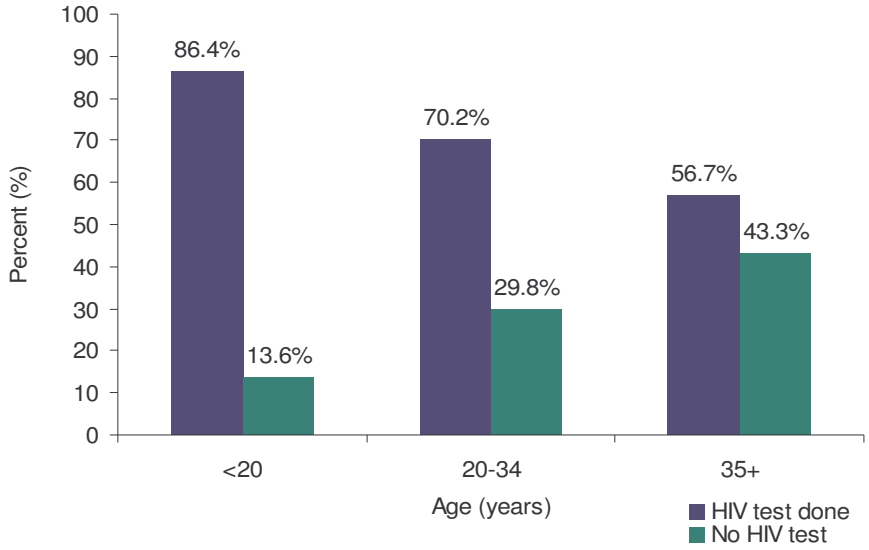


Figure 78:

Prevalence of prenatal HIV test status by maternal race/ethnicity, 2005 MI PRAMS

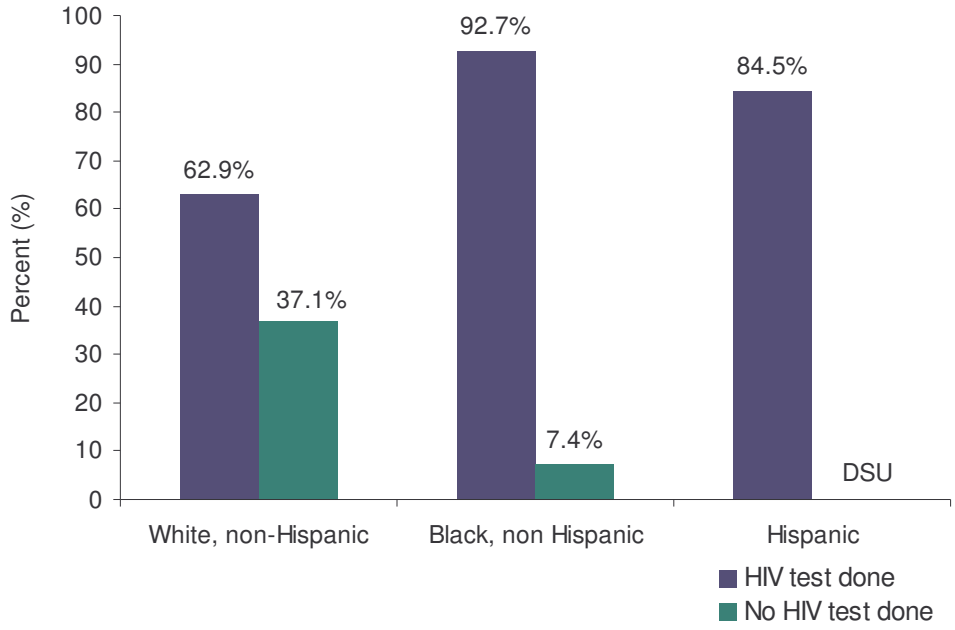


Figure 79:

Prevalence of prenatal HIV test status by maternal education, 2005 MI PRAMS

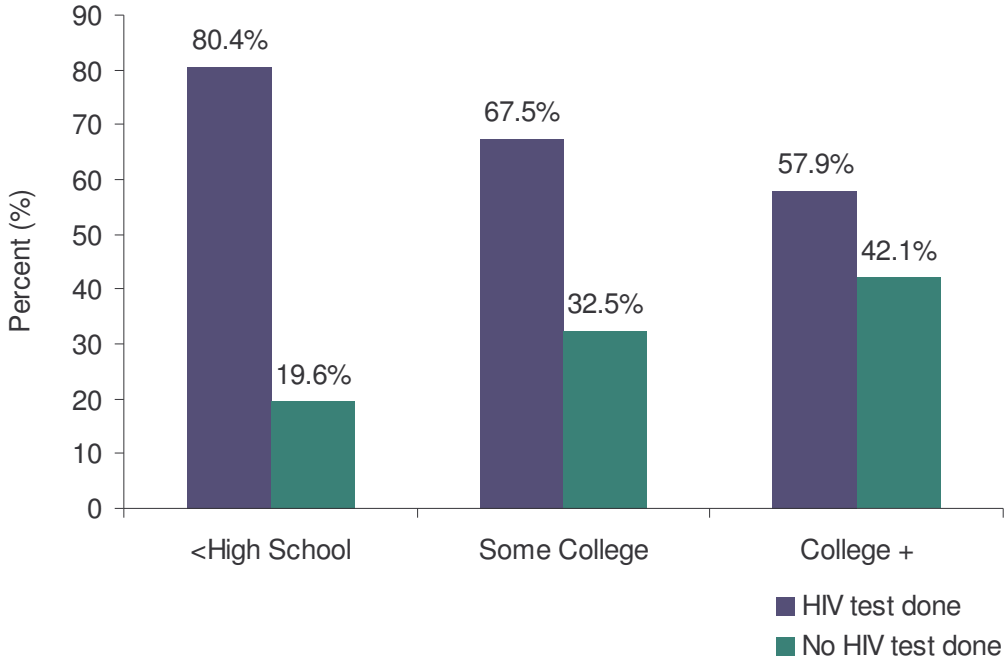
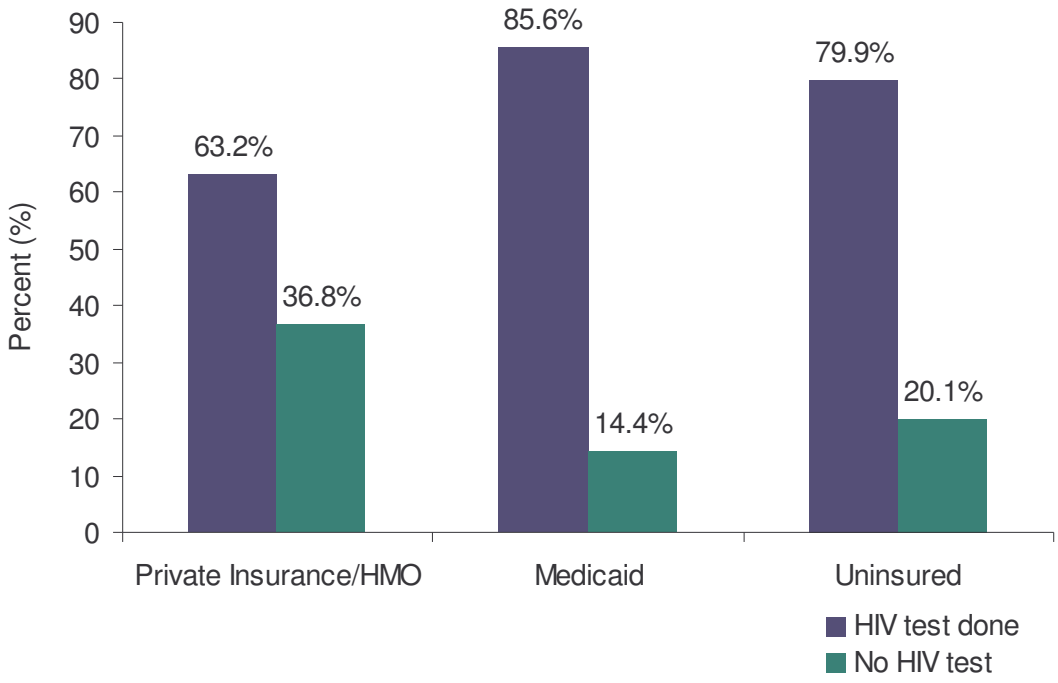


Figure 80:

Prevalence of prenatal HIV test status by maternal pre-pregnancy insurance status, 2005 MI PRAMS



Folic Acid Awareness

Definition:

Folic acid deficiency has been shown to increase the risk of birth defects, particularly neural tube defects. One question in the PRAMS questionnaire asked about the respondents' awareness of the benefits of folic acid prior to pregnancy:

> *Question #64: Before you became pregnant with your new baby, did either of the following things happen?*
> *_You heard or read that taking the vitamin folic acid or foods that contain it (orange juice, citrus fruits, broccoli, green leafy vegetables, and fortified cereal) could prevent some birth defects.*
> *_Your doctor or nurse instructed you on how to get enough folic acid*

The respondent was considered having an awareness of the benefits of folic acid if she responded "Yes" to either situation. Only if she responded "Yes" when asked whether she was instructed by a doctor or nurse about folic acid, was she considered knowledgeable of the benefits and the appropriate amount of folic acid to consume. Although no question directly addresses the consumption of folic acid, question #3 of the survey was used to approximate folic acid consumption.

> *Question #3: During the month before you got pregnant with your new baby, how many times a week did you take a multivitamin or a prenatal vitamin? These are pills that contain many different vitamins and minerals?*
> *_I didn't take a multivitamin or a prenatal vitamin at all*
> *_1-3 times a week*
> *_4-6 times a week*
> *_Every day of the week*

Women who indicated that they took a multivitamin everyday were classified as having, "consumed an appropriate amount." Those women who took a multivitamin 1-6 times a week were considered as having, "consumed less than appropriate amount of folic acid" and those who did not take any multivitamin were categorized as having, "consumed no folic acid."

Results:

When both folic acid awareness and instruction are combined, 54.5% of women were aware and instructed by a healthcare professional about the importance of folic acid in reducing the risk for birth defects. Another 21.1% were aware but received no instruction, 18.5% were neither aware nor instructed, and the final 5.9% of women did not have any prior awareness but were instructed on folic acid by their healthcare provider (Figure #81).

Over fifty-five percent of women reported not taking any multivitamins in the month prior to pregnancy while approximately 27.7% did report taking a daily multivitamin (Figure #82). The prevalence of daily multivitamin consumption was highest (35.4%) among women who reported to be both aware and instructed by a healthcare professional about the benefits of folic acid. Of note, 17.0% of women who were neither instructed nor aware of folic acid reported taking a daily multivitamin in the month prior to pregnancy (Figure #83).

Public Health Implications:

The recommended dose of folic acid is 400µg/day. In the survey, the assumption was made that all multivitamins the mother may have taken in the month prior to pregnancy contained the recommended amount of folic acid.

There appears to be the same disconnection between knowledge of the benefits of folic acid and consumption of a daily supplement as noticed in the prior years. The majority of women know about the sources and benefits of folic acid, but they did not consume a multivitamin daily. Continued education about the benefits of folic acid consumption is still needed particularly in the preconceptional period to encourage women of childbearing age to take a multivitamin. More research is also needed to better understand the reasons/beliefs/barriers why women don't take multivitamins.

Reference Tables: #45- #49b

Folic Acid Awareness

Figure 81:

Prevalence of folic acid awareness and/or instruction,

2005 MI PRAMS

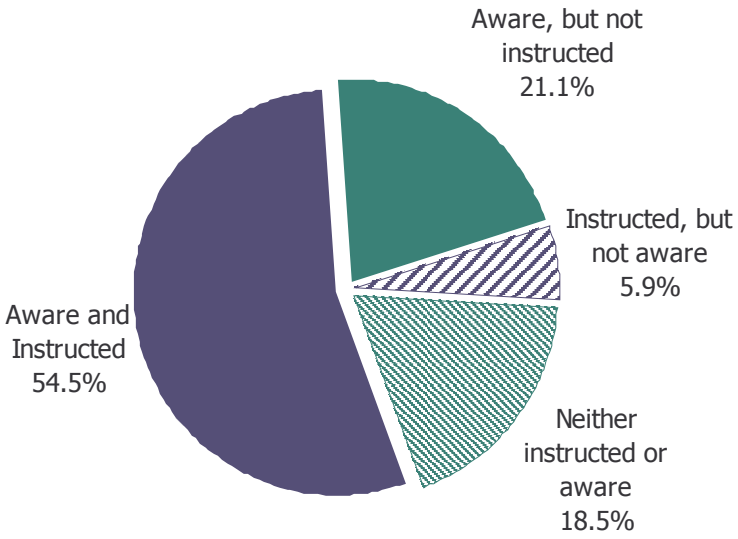
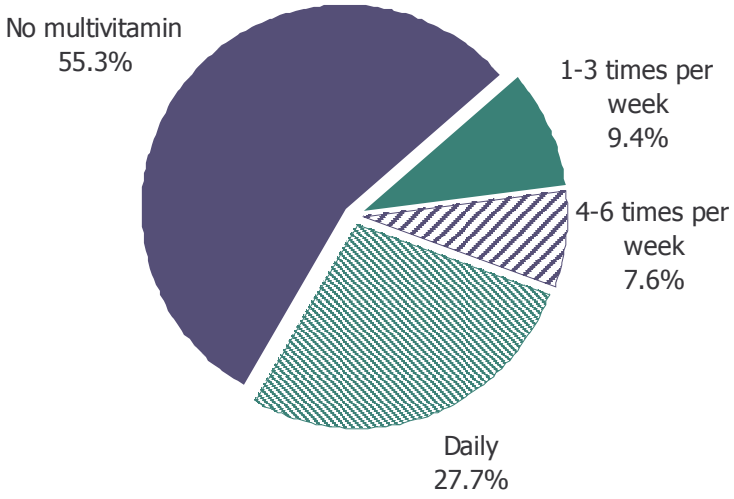


Figure 82:

Frequency of consumption of a multivitamin in the month prior to pregnancy,

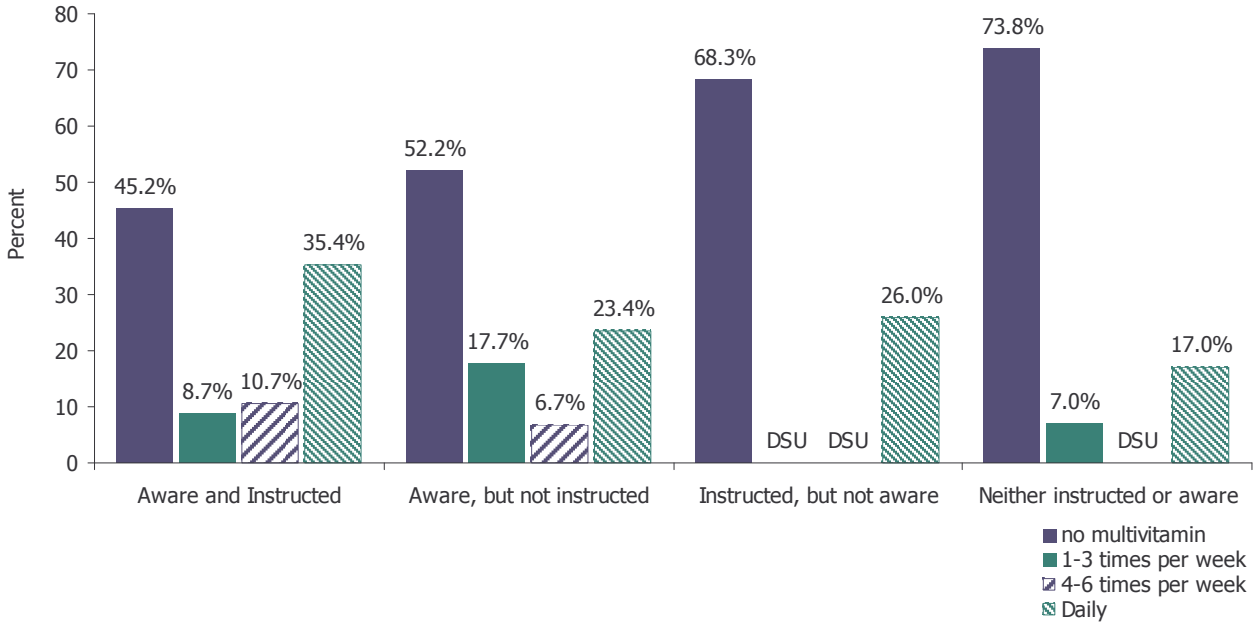
2005 MI PRAMS



Folic Acid Awareness

Figure 83:

Consumption of a multivitamin in the month before pregnancy by awareness of / instruction about folic acid, 2005 MI PRAMS



WIC Participation

Definition:

Three questions regarding the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) were asked of women completing the PRAMS survey. The first of these questions (Question #22) identifies women who participated in WIC during their pregnancy.

Question #22: During your pregnancy, were you on WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children)?

_No
_Yes

Women were categorized as either participating in WIC during pregnancy or not participating in WIC during their pregnancy. Regardless of their answer, however, all women were asked an additional WIC question. Information on infant's participation in WIC was gathered from answers to question #76:

Question #76: Since your new baby was born, have you used WIC services for your new baby?

_No
_Yes

Only women who responded 'No' to #76 were asked question #77.

Question #77: Why wasn't your new baby enrolled in WIC?

_My baby was not eligible
_I didn't know about WIC
_I didn't want to enroll my baby
_Other

Not every pregnant and postpartum woman surveyed by PRAMS is eligible to participate in WIC. There are income and nutritional risks criteria for enrollment in Michigan's WIC: participants must be a pregnant or postpartum woman, reside in Michigan, and be at or below 185% of the Poverty Income Guideline or participate in another state-administered program that utilizes the same income guideline and be classified by a health professional as "nutritionally at risk." While income criteria can be defined, the nutritional risk could not be ascertained by using the PRAMS questionnaire. Therefore, this analysis was restricted to women who participated in Medicaid prior to pregnancy, had Medicaid-paid prenatal care, Medicaid-paid delivery, or received federal assistance as part of their income in the year prior to delivery as income criteria to identify those who were potentially eligible for WIC.

Results:

Among women who met the WIC income requirements, 20.2% did not participate in WIC during their pregnancy (Figure #84). During the postpartum period, 12.8% of women reported that they did not use WIC services for their new baby (Figure #85). Most women (32.3%) reported 'Do not want to enroll infant' as their reason for not participating in WIC followed by 'Other' as the second most prevalent (28.9%) reason for not enrolling their infant (Figure #86).

Public Health Implications:

Based on the PRAMS survey, Michigan's WIC program serves more than three quarters of women who were identified as potentially eligible. These data should be used with caution as the information obtained from the PRAMS questionnaire is limited to self-reporting and the method PRAMS utilizes to define eligibility does not include the full eligibility criteria used by the WIC program. The Michigan WIC program's continuing efforts in outreach activities to reach the most at-risk populations and educate them about the benefits of WIC enrollment on birth outcome, has helped in increasing program participation. Further assessment of the cohort of women who reported 'Other' as their reason for not participating in WIC may help develop more effective programs to reach this group. A similar recommendation is proposed for the sub-group who reported 'Do not want to enroll infant.'

Reference Tables: #50- #52

WIC Participation

Figure 84:

Participation in WIC during pregnancy among income eligible women, 2005 MI PRAMS

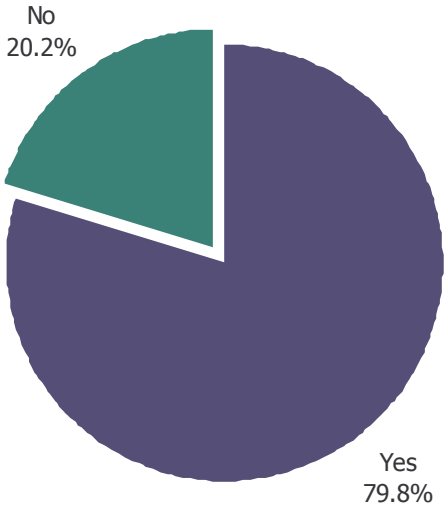
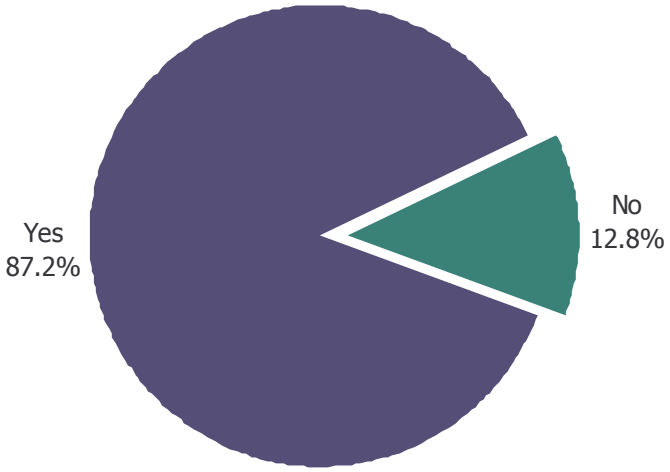


Figure 85:

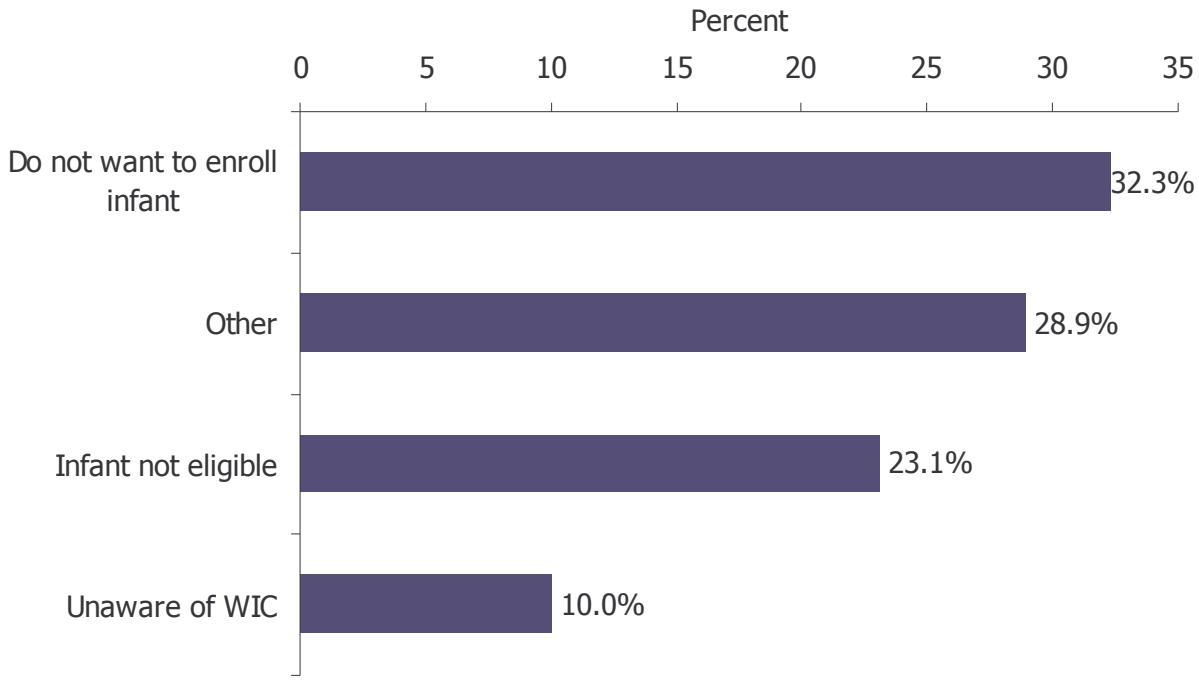
Prevalence of WIC usage for infants among income eligible women, 2005 MI PRAMS



WIC Participation

Figure 86:

Reasons for infant non-participation in WIC among income eligible women, 2005 MI PRAMS



Oral Health

Definition:

Three questions were used to assess the oral health of women completing the PRAMS survey. The first of these questions (Question #78) asked about women's care of their teeth during their most recent pregnancy.

Question #78: This question is about the care of your teeth during your most recent pregnancy.

_I needed to see a dentist for a problem
_I went to a dentist or dental clinic
_A dental or other health care worker talked with me about how to care for my teeth and gums

Women were then asked:

Question #79: Have you ever had your teeth cleaned by a dentist or dental hygienist?

_No
_Yes

Only women who responded 'Yes' to #79 were asked:

Question #80: When did you have your teeth cleaned by a dentist or dental hygienist?

_Before my most recent pregnancy
_During my most recent pregnancy
_After my most recent pregnancy

Results:

A quarter (25.6%) of all women surveyed indicated a need for dental care during their most recent pregnancy (Figure #87). Among those who reported that they needed care, 43.6% did not seek dental care. Results for respondents' lifetime prevalence for ever/never having had their teeth cleaned are presented in Figures #88 and #89. Women who were uninsured were more likely (8.9%) to report that they NEVER had their teeth cleaned followed by those on Medicaid (6.6%) (Figure #88). Of note, women with private insurance were over three times (2.3%) less likely to report that they NEVER had their teeth cleaned compared to those who were uninsured. Women with a college degree or higher were over ten times (1.5%) less likely to report that they NEVER had their teeth cleaned compared to their peers who had less than a high school education (16.3%) (Figure #89).

Public Health Implications:

Oral diseases are among the most prevalent and preventable health conditions affecting women in the United States[a] . Based on the PRAMS 2005 survey, about one quarter of Michigan's women who had a live birth did need dental care during pregnancy. However, the fact that many of the women who had a need did not seek care suggests that there may be an unmet need. Oral health programs aimed at uninsured women and those with less than a high school education should be considered.

[a] Improving Women's Health and Perinatal Outcomes: Snapshot of the Impact of Oral Diseases Women's and Children's Health Policy Center, Bloomberg School of Public Health, Johns Hopkins University; (http://www.med.jhu.edu/wchpc).

Figure 87:

Prevalence of dental care need and dental care sought,

2005 MI PRAMS

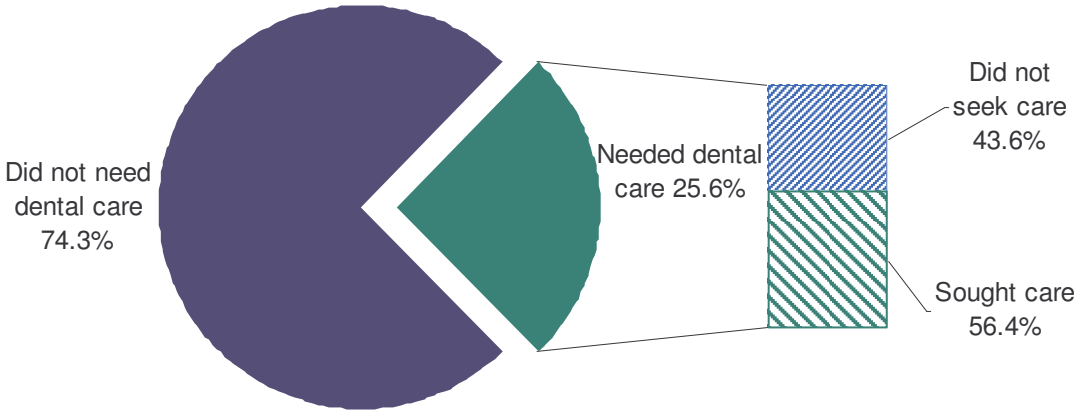


Figure 88:

Prevalence of dental care NEVER/EVER by maternal pre-pregnancy insurance status,

2005 MI PRAMS

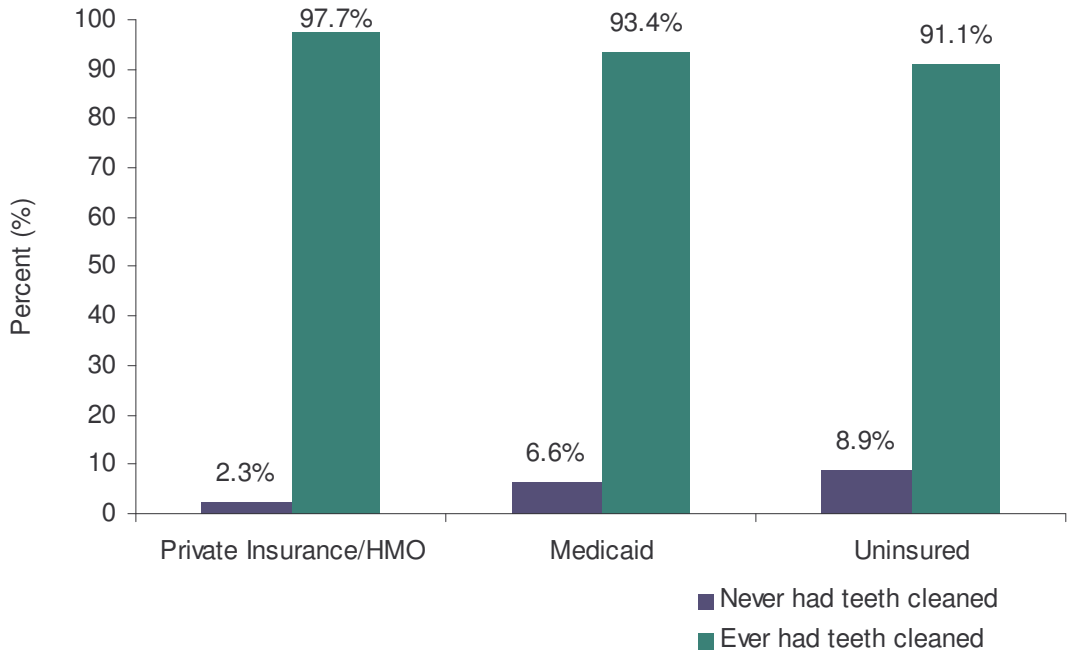


Figure 89:

Prevalence of dental care NEVER/EVER by maternal education,
2005 MI PRAMS

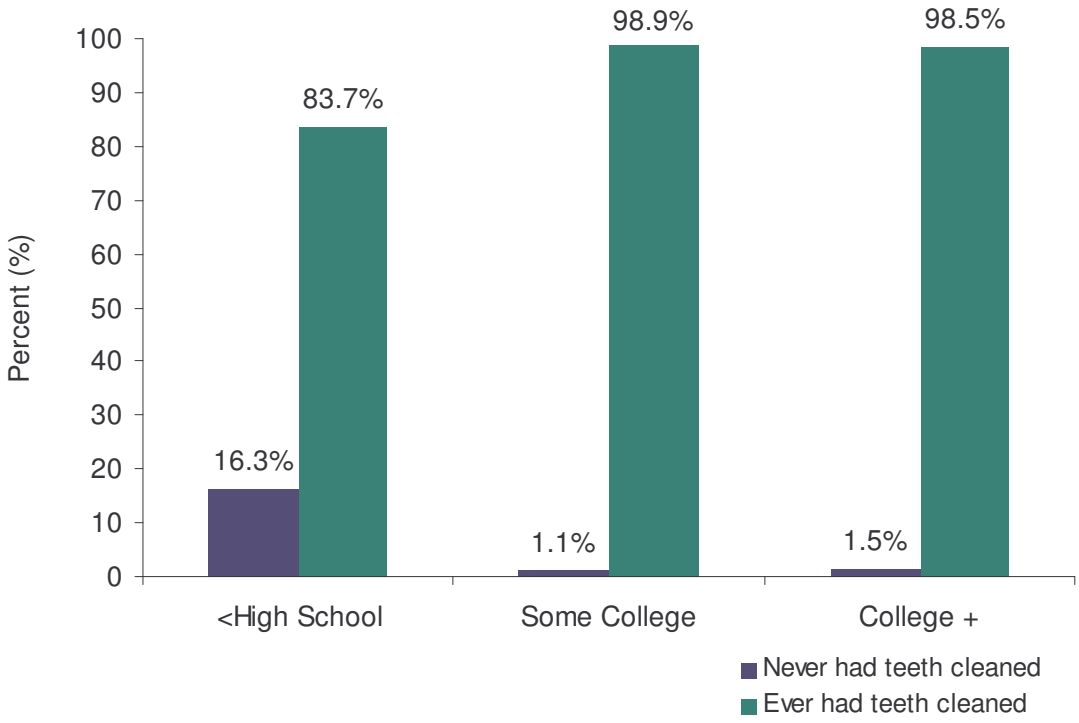


Table of Figures

Methodology

The Pregnancy Risk Assessment Monitoring System (PRAMS) is a population-based survey that is part of the Centers for Disease Control and Prevention (CDC) initiative to reduce infant mortality and low birthweight. The Michigan Department of Community Health (MDCH), under the auspices of the CDC, conducted the data collection for the 2005 Michigan PRAMS. Software developed by the CDC was used to manage the sample, enforce protocol, and enter data.

PRAMS surveys mothers who have delivered a live born infant within a calendar year. Natality information, collected by Michigan's Office of Vital Records and Health Statistics, is the most complete single source of information regarding the live births of Michigan residents and serves as the sampling frame from which PRAMS selects survey respondents. Mothers who had delivered a live born infant who subsequently died are included in the sampling frame. Also, only one infant of a multiple gestation is included in the sampling frame unless the gestation includes four or more siblings. In that instance, all of the infants are excluded from the sampling frame. Other exclusions include: out-of-state births to residents, in-state births to nonresidents, missing information, delayed or early processing of birth certificates, adopted infants, and surrogate births. Oversampling is utilized to gather a sufficient number of responses among small subpopulations within the state. For 2005, Michigan oversampled for women who had delivered low birthweight infants.

PRAMS is a stratified random sample. Stratification permits both separate estimates of subgroups of interest and permits comparisons across these subgroups. In 2005, the sample was stratified by infant birthweight (Low or Normal) and geographic region (SE Region, Other Urban Areas (populations >25,000), All Other Areas). Each calendar month a sample is drawn from the births recorded in the month prior. Once the sample has been identified, the information is forwarded to the Michigan State University (MSU) Office of Survey Research, which is subcontracted by MDCH to conduct the survey.

PRAMS utilizes a mixed-mode methodology in order to gather information from women selected to participate in the survey. This combination mail/telephone survey methodology, based on the research of Don Dilman, is utilized in order to maximize response rates. Women are first notified of the PRAMS survey and then sent the questionnaire, via mail. If the mother has not responded after three attempts by mail, she is then contacted by telephone and has the opportunity to participate in the PRAMS survey via telephone. From a total of 1836 women,

who were selected from the sampling frame to participate, 1,311 (71.4%) women were surveyed. The demographic characteristics of these women are depicted in the section entitled, 'Maternal Demographics'.

The questionnaire consists of two parts. First, there are core questions, developed by the CDC, that appear on all states' surveys. Second, there are state-added questions that are tailored to each state's needs. Topics addressed in the PRAMS core questionnaire include barriers to and content of prenatal care, obstetric history, maternal use of alcohol and tobacco, physical abuse, contraception, economic status, maternal stress, and early infant development and health status. Some state-added questions provide additional insight on topics already addressed in the core questionnaire, including content of prenatal care, contraception, and physical abuse. Other questions address different topics, including social support and services, mental health, and injury prevention. Topics addressed by the new state-added include: racism, mental health, mental/emotional abuse, and pre-pregnancy contraception.

Weighting

After the data collection is concluded, mothers' responses are linked to their corresponding birth certificate data. The linked PRAMS response/birth certificate dataset is then sent to the CDC for weighting. Weighting allows public health professionals and researchers to estimate the statistics for the entire state's population of women who delivered a live born infant from data gathered from a sample of mothers in that population. In PRAMS there are three weighting components that adjusted for: sample design, nonresponse, and omissions in the sampling frame. Nonresponse adjustment factors attempt to compensate for the tendency of women having certain characteristics (such as being unmarried or of lower education) to respond at lower rates than women without those characteristics. The rationale for applying nonresponse weights is the assumption that nonrespondents would have provided similar answers to respondents' answers for that stratum and adjustment category.

Interpretation of Results

As with all surveys, PRAMS is not free of sampling error. The 95% confidence intervals are included in order to quantify this error and to clarify the degree of certainty in the estimates.

As stated earlier, the 2005 Michigan sample was stratified by infant birthweight (Low or Normal) and geographic region (SE region and All Other Areas). The information in this report was weighted to estimate the characteristics for the entire cohort of women delivering a live born infant in 2005. The overall response rate was 71.4%. The response rate for each of the strata is as follows:

- SE Region/LBW: 58.8%
- SE Region/NBW: 69.2%
- Other Urban Areas/LBW: 61.2%
- Other Urban Areas/NBW: 69.0%
- Non-Urban Areas/LBW: 80.1%
- Non-Urban Areas/NBW: 80.4%

Both Southeast and the Other Urban Area strata had response rates in 2005 that fell short of the 70% that the CDC regards as the epidemiologically valid threshold for PRAMS. Analysis specific to these strata will result in potentially biased estimates. Consequently, the information regarding these strata must be viewed with caution.

Appendix B: Detailed Tables

Table 1:
Selected demographic characteristics,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,311	123,737	100.0		
Maternal age (years)					
<18	37	3,374	2.7	1.7	3.7
18-19	87	9,070	7.3	5.6	9.0
20-24	289	26,643	21.6	19.0	24.1
25-29	405	37,768	30.6	27.7	33.4
30-34	318	31,110	25.1	22.5	27.8
35-39	138	12,540	10.1	8.3	12.0
40+	37	3,231	2.6	1.6	3.6
Race/Ethnicity					
White, Non-Hispanic	975	88,488	74.0	71.1	76.9
Black, Non-Hispanic	201	20,862	17.4	14.9	20.0
Hispanic	54	6,129	5.1	3.7	6.6
American Indian	39	3,395	2.8	1.9	3.8
Asian/Pacific Islander	6	595	0.5	0.1	0.9
Other	1	110	0.1	0.0	0.3
Maternal Education					
<High School	157	15,711	13.0	10.8	15.2
High School	377	39,702	32.8	29.7	35.8
Some College	342	29,357	24.2	21.7	26.8
College+	420	36,435	30.1	27.3	32.8
Marital Status					
Married	850	79,922	64.6	61.6	67.6
Un-married	461	43,815	35.4	32.4	38.4
Pre-Pregnancy Insurance Status					
Private Insurance/HMO	831	77,755	63.1	60.1	66.1
Medicaid	198	17,971	14.6	12.4	16.8
Uninsured	279	27,524	22.3	19.7	25.0

2005 MI PRAMS

Table 2:
Prevalence of intended and unintended pregnancies,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,297	122,340	100.0		
Intended	767	71,175	58.2	55.1	61.3
Unintended*	530	51,165	41.8	38.7	44.9
					2005 MI PRAMS

*Unintended Pregancy: Wanted to become pregnany later or did not want to be pregnancy at all

Table 3:
Prevalence of types of unintended pregnancies,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	530	51,165	100.0		
Type of Unintended Pregnancy					
Mistimed*	375	35,315	69.0	64.4	73.7
Unwanted**	155	15,850	31.0	26.3	35.6
					2005 MI PRAMS

*Mistimed: Wanted to bcome pregnant later

**Unwanted: Did not want to be pregnant then or in the future

Table 4:
Prevalence of contraceptive use and methods among unintended pregnancies,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	494	47,575	47.1		
Contraceptive Use					
Yes	307	333,333	53.0	48.6	57.4
No	307	29,542	47.0	42.6	51.4
Contraceptive Method					
Condom	142	13,003	40.7	34.6	46.7
Withdrawal	122	11,517	36.0	30.1	41.9
Birth Control Pill	92	8,822	27.6	22.0	33.1
Other	16	1,799	5.6	2.7	8.6
Contraceptive patch	18	1,809	5.7	2.8	8.5
Shot 3 times per month	9	‡	‡	‡	‡
Shot once per month	3	‡	‡	‡	‡
Sterilization (male)	3	‡	‡	‡	‡
Sterilization (female)	3	‡	‡	‡	‡
					2005 MI PRAMS

‡ Data not shown due to small sample size

Table 5:
Prevalence of pregnancy intention by maternal demographic characteristics,
2005 MI PRAMS

	Intended Pregnancy					Unintended Pregnancy				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	767	71,175	58.2	55.1	61.3	530	51,165	41.8	38.7	44.9
Maternal age (years)										
<18	6	518	15.4	2.0	28.8	31	2,856	84.6	71.2	98.0
18-19	28	2,860	31.5	20.1	42.9	59	6,210	68.5	57.1	79.9
20-24	123	11,836	45.0	38.3	51.6	162	14,490	55.0	48.4	61.7
25-29	259	23,641	63.7	58.2	69.1	142	13,491	36.3	30.9	41.8
30-34	231	21,951	70.6	64.9	76.6	86	9,130	29.4	23.6	35.1
35-39	97	8,665	70.6	61.6	79.6	39	3,611	29.4	20.4	38.4
40+	23	1,704	55.3	35.5	75.1	11	1,377	44.7	24.9	64.5
Race/Ethnicity										
White, Non-Hispanic	607	54,857	62.5	59.0	65.9	361	32,968	37.5	34.1	41.0
Black, Non-Hispanic	75	8,058	39.6	31.5	47.7	121	12,291	60.4	52.3	68.5
Hispanic	27	2,689	43.9	29.3	58.5	27	3,441	56.1	41.5	70.7
American Indian	4	‡	‡	‡	‡	1	‡	‡	‡	‡
Asian/Pacific Islander	1	‡	‡	‡	‡	0	‡	‡	‡	‡
Maternal Education										
<High School	61	6,614	42.3	33.1	51.5	95	9,022	57.7	48.5	66.9
High School	178	19,569	49.7	43.9	55.5	195	19,801	50.3	44.5	56.1
Some College	193	16,299	56.3	50.4	62.3	144	12,633	43.7	37.7	49.6
College+	331	28,194	77.7	73.0	82.4	87	8,091	22.3	17.6	27.0
Marital Status										
Married	624	57,731	72.9	69.5	76.4	219	21,411	27.1	23.6	30.5
Other	143	13,445	31.1	26.1	36.1	311	29,754	68.9	63.9	73.9
Pre-Pregnancy Insurance Status										
Private Insurance/HMO	582	52,891	68.8	65.1	72.5	241	23,978	31.1	27.5	34.8
Medicaid	71	6,928	39.6	31.4	47.8	122	10,562	60.4	52.2	68.6
Uninsured	113	11,224	40.8	34.1	47.6	165	16,270	59.2	52.4	65.9

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 6:
Prevalence of contraceptive use prior to pregnancy by maternal demographic characteristics, 2005 MI PRAMS

	Did Not Use Contraception					Used Contraception				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	339	33,333	53.0	48.6	57.4	307	29,542	47.0	42.6	51.4
Maternal age (years)										
<18	12	1,336	50.6	29.9	71.2	19	1,304	49.4	28.8	70.1
18-19	38	3,950	55.5	41.9	69.0	30	3,173	45.5	31.0	58.1
20-24	97	8,452	50.7	42.1	59.2	87	8,227	49.3	40.8	57.9
25-29	84	9,147	55.9	47.2	64.5	80	7,218	44.1	35.5	52.7
30-34	63	6,361	51.7	41.7	61.7	56	5,944	48.3	38.3	58.3
35-39	33	3,195	54.4	40.0	68.9	27	2,674	45.6	31.1	60.0
40+	12	892	47.1	21.4	72.8	8	1,002	52.9	27.2	79
Race/Ethnicity										
White, Non-Hispanic	220	20,180	50.1	44.7	55.4	217	20,124	49.9	44.6	55.3
Black, Non-Hispanic	85	9,444	63.1	53.9	72.3	59	5,527	36.9	27.7	46.1
Hispanic	15	1,783	50.0	30.2	69.8	15	1,782	50.0	30.2	69.8
American Indian	1	‡	‡	‡	‡	1	‡	‡	‡	‡
Asian/Pacific Islander	7	‡	‡	‡	‡	6	‡	‡	‡	‡
Maternal Education										
<High School	63	6,427	62.1	51.7	72.5	47	3,919	37.9	27.5	48.3
High School	124	12,511	51.2	43.8	58.6	108	11,926	48.8	41.4	56.2
Some College	84	7,647	50.1	41.7	58.5	89	7,626	49.9	41.5	58.3
College+	63	5,838	52.1	42.1	62.1	59	5,361	47.9	37.9	57.9
Pre-Pregnancy Insurance Status										
Private Insurance/HMO	149	15,310	49.3	43.1	55.6	162	15,724	50.7	44.4	56.9
Medicaid	85	7,742	57.7	48.2	67.1	60	5,678	42.3	32.9	51.8
Uninsured	104	10,041	55.6	47.3	63.9	84	8,024	44.4	36.1	52.7

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 7:
Reasons for contraceptive nonuse prior to pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Reasons					
Did not mind getting pregnant	150	14,799	41.5	35.6	47.4
Thought could not get pregnant	88	7,188	20.1	15.5	24.7
Husband/partner did not want to use	50	5,181	14.5	10.2	18.8
Other	56	5,586	15.7	11.5	20.0
Discontinued birth control because of side el	51	5,622	15.8	11.3	20.4
Difficulty getting birth control	25	2,091	5.9	3.1	8.6
Thought husband/partner sterile	22	1,922	5.4	2.8	8.0
					2005 MI PRAMS

Table 8:
Contraceptive method used prior to pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Contraceptive Method					
Condom	142	13,003	40.7	34.6	46.7
Withdrawal	122	11,517	36.0	30.1	41.9
Birth Control Pill	92	8,822	27.6	22.0	33.1
Rhythm	47	4,425	13.8	9.7	18
Contraceptive patch	18	1,809	5.7	2.8	8.5
Abstinence	15	1,336	4.2	1.8	6.5
Other	16	1,799	5.6	2.7	8.6
Shot once per month	3	DSU	DSU	DSU	DSU
Shot 3 times per month	9	DSU	DSU	DSU	DSU
Diaphram	2	DSU	DSU	DSU	DSU
Cervical ring	1	DSU	DSU	DSU	DSU
IUD	2	DSU	DSU	DSU	DSU
Sterilization (male)	3	DSU	DSU	DSU	DSU
Sterilization (female)	3	DSU	DSU	DSU	DSU
					2005 MI PRAMS

Table 9:
Prevalence of contraceptive use postpartum by maternal demographic characteristics,
2005 MI PRAMS

	Did not use contraception					Used contraception				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	201	19,316	15.9	13.6	18.2	1,090	102,248	84.1	81.8	86.4
Maternal age (years)										
<18	6	‡	‡	‡	‡	27	2,068	72.1	0.9	2.5
18-19	15	1,480	17.1	0.5	1.9	69	7,165	82.9	4.3	7.5
20-24	31	2,858	10.9	1.4	3.3	254	23,444	89.1	16.8	21.7
25-29	58	5,687	15.2	3.3	6.0	343	31,644	84.8	23.3	28.7
30-34	57	5,973	19.4	3.5	6.3	258	24,891	80.6	18.0	23.0
35-39	24	1,954	15.7	0.9	2.4	113	10,469	84.3	6.9	10.4
40+	10	‡	‡	‡	‡	26	2,567	82.0	1.2	3.0
Race/Ethnicity										
White, Non-Hispanic	132	12,150	13.9	11.4	16.4	833	75,327	86.1	83.6	88.6
Black, Non-Hispanic	45	4,630	22.9	16.0	30.0	151	15,558	77.1	70.1	84.0
Hispanic	8	‡	‡	‡	‡	45	5,043	84.1	72.7	95.5
Asian/Pacific Islander	10	‡	‡	‡	‡	26	2,432	77.2	62.5	92.0
American Indian	1	‡	‡	‡	‡	5	‡	‡	‡	‡
Maternal Education										
<High School	27	3,095	20.4	12.5	28.3	125	12,053	79.6	71.7	87.5
High School	62	6,439	16.6	12.2	21.0	308	32,404	83.4	79.0	87.8
Some College	42	3,995	13.8	9.5	18.1	296	24,959	86.2	81.9	90.5
College+	67	5,363	14.9	11.1	18.6	349	30,726	85.1	81.4	88.9
Prenatal Contraception Counseling										
Talked to Health Care Worker	141	14,299	18.3	13.2	23.4	856	79,477	81.7	76.6	86.8
Did not talk to Health Care Worker	56	4,568	15.2	12.6	17.9	217	20,418	84.8	82.1	87.4

2005 MI PRAMS

Discussed contraception with a doctor, nurse, or other health professional during prenatal care visit. Does not include educational literature or videos

‡ Data not shown due to small sample size

Table 10:
Reasons for contraceptive nonuse postpartum,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Reasons					
Did not want to use birth control	54	5,599	27.6	20.4	34.7
Other	56	5,179	25.7	19.0	32.4
Not having sex	51	4,593	22.6	16.1	29.1
Want to get pregnant	47	4,295	21.3	14.7	27.8
Husband/partner does not want to use	26	2,971	14.7	9.0	20.5
Believe cannot get pregnant	11	DSU	DSU	DSU	DSU
Cannot afford birth control	8	DSU	DSU	DSU	DSU
Pregnant now	7	DSU	DSU	DSU	DSU

2005 MI PRAMS

Table 11:
Prevalence of infant birthweight,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Prevalence by LBW					
Total	1,311	123,737	100.0		
NBW	993	114,666	92.7	91.7	93.6
LBW*	318	9,071	7.3	6.4	8.3
Prevalence by LBW Type					
Total	318	9,071			
mLBW**	259	7,364	81.2	76.3	86.1
vLBW***	59	1,707	18.8	13.9	23.7

2005 MI PRAMS

*LBW: Birthweight below 2500 grams

**Birthweight between 1500 to 2500 grams

***Birthweight beolw 1500 grams

Table 12:
Prevalence of birth weight by pregnancy intention,
2005 MI PRAMS

	Low Birthweight					Normal Birthweight				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Unintended Pregnancy										
Total	314	8,912				983	113,429			
Unintended	145	4,663	9.1	7.4	10.8	385	46,502	90.9	89.2	92.6
Intended	169	4,248	6.0	4.9	7.0	598	66,927	94.0	93.0	95.1
Unintended Pregnancy Type										
Total	145					385				
Mistimed	102	3,133	8.9	6.9	10.9	273	32,182	91.1	89.1	93.1
Unwanted	43	1,530	9.7	6.3	13.0	112	14,320	90.3	87.0	93.7

2005 MI PRAMS

Table 13:
Infant birthweight by maternal demographic characteristics,
2005 MI PRAMS

	Low Birthweight					Normal Birthweight				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	318	9,071	7.3	6.4	8.3	993	114,666	92.7	91.7	93.6
Maternal age (years)										
<18	11	341	10.1	3.2	17.0	26	3,033	89.9	83.0	96.8
18-19	21	638	7.0	3.6	10.5	66	8,432	93.0	89.5	96.4
20-24	81	2,437	9.1	6.8	11.5	208	24,206	90.9	88.5	93.2
25-29	89	2,285	6.0	4.6	7.5	316	35,483	94.0	92.5	95.4
30-34	64	1,890	6.1	4.3	7.8	254	29,220	93.9	92.2	95.6
35-39	41	1,213	9.7	6.1	13.2	97	11,327	90.3	86.8	93.9
40+	11	266	8.3	2.4	14.1	26	2,965	91.7	85.9	97.6
Race/Ethnicity										
White, Non-Hispanic	226	5,546	6.3	5.3	7.2	749	82,942	93.7	92.8	94.7
Black, Non-Hispanic	71	2,907	13.9	10.2	17.7	130	17,954	86.1	82.3	89.8
Hispanic	8	231	3.8	0.9	6.7	46	5,898	96.2	93.3	99.1
Asian/Pacific Islander	9	292	8.6	2.3	14.9	30	3,103	91.4	85.1	97.7
American Indian	1	‡	‡	‡	‡	5	‡	‡	‡	‡
Maternal Education										
<High School	48	1,636	10.4	7.0	13.8	109	14,075	89.6	86.2	93.0
High School	95	3,031	7.6	5.8	9.4	282	36,671	92.4	90.6	94.2
Some College	82	2,020	6.9	5.1	8.6	260	27,337	93.1	91.4	94.9
College+	92	2,328	6.4	4.9	7.9	328	34,107	93.6	92.1	95.1
Marital Status										
Married	178	4,427	5.5	4.6	6.5	672	75,495	94.5	93.5	95.4
Un-married	140	4,644	10.6	8.6	12.6	321	39,171	89.4	87.4	91.4
Pre-Pregnancy Insurance Status										
Private Insurance/HMO	176	4,629	6.0	4.9	7.0	655	73,126	94.0	93.0	95.1
Medicaid	68	2,319	12.9	9.3	16.5	130	15,652	87.1	83.5	90.7
Uninsured	74	2,123	7.7	5.6	9.8	205	25,401	92.3	90.2	94.4

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 14:
Prevalence of low birthweight by gestational age,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	318	9,071	100.0		
Gestational Age					
Pre-term infant*	216	5,989	47.4	39.2	55.7
Term infant**	102	3,082	2.8	2.2	3.4
					2005 MI PRAMS

*Pre-term infant: Gestational age < 37 weeks

**Term infant: Gestational age >= 37 weeks

Table 15:
Trimester of entry into prenatal care,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,300	122,765	100.0		
Entry into Prenatal Care					
1st trimester	1,074	100,050	81.5	79.0	84.0
2nd trimester	202	19,894	16.2	13.9	18.6
3rd trimester	16	1,660	1.4	0.6	2.1
No PNC	8	‡	‡	‡	‡
					2005 MI PRAMS

*LBW: Birthweight below 2500 grams

‡ *Data not shown due to small sample size*

Table 16:
Trimester of entry into prenatal care by maternal demographic characteristics,
2005 MI PRAMS

	1st Trimester					After 1st Trimester/Not at all				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,300	122,765	100.0							
Maternal age (years)										
<18	21	1,761	52.2	33.0	71.4	16	1,614	47.8	28.6	67.0
18-19	54	5,744	63.5	51.8	75.2	32	3,303	36.5	24.8	48.2
20-24	211	19,928	75.9	70.2	81.6	73	6,332	24.1	18.4	29.8
25-29	355	31,499	83.7	79.2	88.2	49	6,137	16.3	11.8	20.8
30-34	282	27,359	88.4	84.3	92.5	34	3,577	11.6	7.5	15.7
35-39	121	11,012	89.7	83.8	95.5	15	1,269	10.3	4.5	16.2
40+	30	2,748	85.0	71.3	98.7	7	‡	‡	‡	‡
Race/Ethnicity										
White, Non-Hispanic	830	75,005	85.4	82.9	88.0	137	12,814	14.6	12.0	17.1
Black, Non-Hispanic	138	13,814	66.8	58.8	74.8	61	6,860	33.2	25.2	41.2
Hispanic	39	4,191	69.7	55.6	83.8	14	1,822	30.3	16.2	44.4
Asian/Pacific Islander	31	2,856	84.1	72.4	95.8	8	‡	‡	‡	‡
American Indian	6	‡	‡	‡	‡	0	‡	‡	‡	‡
Maternal Education										
<High School	95	9,562	61.4	52.2	70.6	60	6,010	38.6	29.4	47.8
High School	291	30,263	77.0	72.1	81.9	82	9,046	23.0	18.1	27.9
Some College	286	24,499	84.0	79.5	88.5	54	4,669	16.0	11.5	20.5
College+	390	33,784	93.4	90.7	96.0	27	2,400	6.6	4.0	9.3
Pre-Pregnancy Insurance Status										
Private Insurance/HMO	750	69,669	90.4	88.1	92.7	75	7,389	9.6	7.3	11.9
Medicaid	142	12,549	70.0	62.3	77.8	54	5,376	30.0	22.2	37.7
Uninsured	180	17,462	64.0	57.3	70.7	96	9,834	36.0	29.3	42.7

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 17:
Trimester of entry into prenatal care by pregnancy intention,
2005 MI PRAMS

	1st Trimester					After 1st Trimester/Not at all				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Intended	663	60,793	86.2	83.3	89.2	98	9,719	13.8	10.8	16.7
Unintended	401	38,298	75.1	70.8	79.4	125	12,690	24.9	20.6	29.2

2005 MI PRAMS

Table 18:
Satisfaction with trimester of entry into prenatal care,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,307	123,428	100.0		
Satisfaction with Time of Entry					
No	219	21,226	17.2	14.8	19.6
Yes	1,081	101,310	82.1	79.6	84.5
Did not want	7	‡	‡	‡	‡

2005 MI PRAMS

‡ *Data not shown due to small sample size*

Table 19:
Number of barriers to care experienced by women who were not satisfied with the trimester of entry into prenatal care,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,241	117,444	100.0		
Number of Barriers					
1 barrier	168	15,845	13.5	11.3	15.7
2 barriers	97	10,049	8.6	6.7	10.4
3 barriers	43	4,118	3.5	2.3	4.7
4 barriers	16	1,510	1.3	0.4	2.1
5 barriers	11	1,450	1.2	0.4	2.1
6 barriers	1	DSU	DSU	DSU	DSU
					2005 MI PRAMS

DSU: Data Statistically Unreliable

Table 20:
Types of barriers to care experienced by women who were not satisfied with the trimester of entry into prenatal care,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Types of Barriers					
Could not get earlier appointment	127	13,343	11.4	9.3	13.5
Could not pay for appointment	78	7,952	6.8	5.1	8.5
Doctor/HMO would not start care earlier	71	7,174	6.2	4.5	7.8
Other	39	3,603	3.1	2.0	4.3
Too much going on	63	6,568	5.6	4.1	7.1
Did not have Medicaid Card	71	6,601	5.7	4.2	7.1
No transportation	60	6,115	5.2	3.7	6.7
No child care	56	6,250	5.4	3.9	6.9
No leave time	38	4,274	3.7	2.4	4.9
Keep pregnancy secret	48	4,586	3.9	2.6	5.2
					2005 MI PRAMS

Table 21:
Sources of payment for prenatal care,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Sources of Payment					
Private Insurance	827	77,321	63.2	60.2	66.3
Medicaid	520	48,678	39.8	36.6	42.3
Personal Income	220	21,016	17.2	14.9	19.5
Other	30	2,530	2.1	1.2	2.9
					2005 MI PRAMS

Table 22:
Topics discussed during any prenatal care visit (literature and videos excluded),
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Topics Discussed					
Safe Medications	1,138	106,312	88.1	86.1	90.2
Screening for Birth Defects	1,140	106,780	88.5	86.4	90.5
Early Labor	1,047	99,973	83.2	80.9	85.6
HIV/AIDS Test	1,095	102,739	85.2	83.0	87.4
Breastfeeding	1,050	98,654	81.8	79.4	84.2
Postpartum Contraception	1,009	95,048	79.0	76.5	81.6
Alcohol Consumption during Pregnancy	938	86,941	72.3	69.4	75.1
Smoking during Pregnancy	958	89,789	74.5	71.8	77.2
Illegal Drug Use during Pregnancy	842	78,620	65.5	62.5	68.5
Seatbelt Use	650	59,628	49.8	46.6	52.9
Domestic Abuse	633	59,823	49.7	46.6	52.8
					2005 MI PRAMS

Table 23:
Breastfeeding intention prior to delivery,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,263	120,795			
Plan					
Planned to breastfeed	759	71,660	59.3	56.2	62.4
May Breastfeed	217	19,883	16.5	14.1	18.8
Planned not to breastfeed	247	25,570	21.1	18.5	23.8
Unsure about breastfeeding	40	3,682	3.0	1.9	4.2
					2005 MI PRAMS

Table 24:
Breastfeeding initiation,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,263	120,622			
Breastfeeding Initiation					
Yes	931	86,982	72.1	69.2	75.0
No	332	33,640	27.9	25.0	30.8
					2005 MI PRAMS

Table 25:
Breastfeeding duration,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,262	120,686			
Breastfeeding Duration					
Did not breastfeed	332	33,640	27.8	25.0	30.8
Breastfed for <1 week	69	7,797	6.5	4.8	8.1
Breastfed for >1 week, but concluded	388	34,404	28.5	25.7	31.3
Breastfeeding when surveyed	473	44,845	37.2	34.1	40.2
					2005 MI PRAMS

Table 26a:
Prevalence of breastfeeding duration by maternal demographic characteristics,
2005 MI PRAMS

	Did not breastfeed					Breastfed for <1 week				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	332	33,640				68	7,558			
Maternal age (years)										
<18	13	1,530	49.7	29.6	69.8	4	‡	‡	‡	‡
18-19	26	2,921	34.9	22.5	47.3	11	1,385	16.5	7.1	26.0
20-24	93	8,927	34.3	27.8	40.8	16	1,661	6.4	2.8	9.9
25-29	92	9,025	24.3	19.4	29.2	23	2,642	7.1	4.0	10.2
30-34	72	7,891	25.7	20.0	31.4	10	1,287	4.2	1.3	7.1
35-39	29	2,687	22.0	13.8	30.2	4	‡	‡	‡	‡
40+	7	‡	‡	‡	‡	1	‡	‡	‡	‡
Race/Ethnicity										
White, Non-Hispanic	227	21,941	25.3	22.1	28.5	46	4,856	5.6	3.8	7.4
Black, Non-Hispanic	70	7,160	36.1	27.9	44.3	15	1,835	9.2	4.0	14.5
Hispanic	17	2,097	34.5	20.2	48.8	3	‡	‡	‡	‡
Asian/Pacific Islander	3	‡	‡	‡	‡	0	‡	‡	‡	‡
American Indian	0	‡	‡	‡	‡	1	‡	‡	‡	‡
Education										
<High School	58	6,442	43.4	33.9	52.9	11	1,029	6.9	2.0	11.9
High School	131	14,334	37.3	31.6	43.0	29	3,967	10.3	6.5	14.2
Some College	92	7,994	30.9	22.1	33.0	13	1,083	3.7	1.4	6.1
College+	46	3,802	10.6	7.3	13.7	15	1,480	4.1	1.8	6.4
Marital Status										
Married	168	16,830	21.3	18.1	24.5	37	4,504	5.7	3.7	7.7
Un-married	164	16,810	40.3	34.8	45.7	32	3,294	7.9	4.9	10.9

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 26b:
Prevalence of breastfeeding duration by maternal demographic characteristics,
2005 MI PRAMS

	Breastfed for >1 week, but concluded					Breastfeeding when surveyed				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	388	34,404	28.6	25.8	31.4	472	44,735	37.2	34.2	40.2
Maternal age (years)										
<18	17	1,347	43.8	24.3	63.2	0	‡	‡	‡	‡
18-19	36	3,263	39.0	27.1	50.9	8	‡	‡	‡	‡
20-24	95	7,969	30.6	24.5	36.8	72	7,469	28.7	22.5	34.9
25-29	114	10,798	29.1	24.0	34.2	165	14,618	39.4	34.0	44.8
30-34	90	8,020	26.1	20.8	31.4	139	13,508	44.0	37.8	50.1
35-39	30	2,415	19.8	12.2	27.5	66	6,489	53.2	43.3	63.1
40+	6	‡	‡	‡	‡	23	1,960	60.7	41.9	79.5
Race/Ethnicity										
White, Non-Hispanic	300	25,860	29.8	26.5	33.1	375	34,137	39.3	35.8	42.8
Black, Non-Hispanic	56	5,456	27.5	20.2	34.8	45	5,388	27.2	19.6	34.7
Hispanic	14	1,421	23.4	10.8	36.0	18	2,141	35.2	21.0	49.4
Asian/Pacific Islander	13	1,190	38.0	20.1	55.9	19	1,559	49.8	31.3	68.3
American Indian	1	‡	‡	‡	‡	4	‡	‡	‡	‡
Education										
<High School	52	4,793	32.3	23.6	41.0	24	2,588	17.4	10.1	24.8
High School	118	11,297	29.4	24.2	34.6	77	8,824	23.0	18.0	28.0
Some College	109	8,949	30.9	25.4	36.4	122	10,953	37.8	32.0	43.6
College+	106	8,894	24.7	20.1	29.3	245	21,842	60.6	55.4	65.9
Marital Status										
Married	222	19,743	25.0	21.7	28.3	403	37,871	48.0	44.1	51.8
Un-married	166	14,661	35.1	30.0	40.3	70	6,974	16.7	12.6	20.8

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 27:
Average breastfeeding duration, in weeks, among women who breastfed for longer than 1 week, but had discontinued before being surveyed,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Average (weeks)	Lower confidence interval	Upper confidence interval
Total	388	34,404			
Maternal age (years)					
<18	17	1,347	4.9	3.3	6.5
18-19	36	3,263	5.1	3.8	6.4
20-24	95	7,969	4.7	4.0	5.4
25-29	114	10,798	6.7	5.7	7.7
30-34	90	8,020	5.7	4.7	6.7
35-39	30	2,415	5.6	3.5	7.6
40+	6	‡	4.3	1.6	7.0
Race/Ethnicity					
White, Non-Hispanic	300	25,860	5.6	5.1	6.1
Black, Non-Hispanic	56	5,456	5.5	4.0	7.1
Hispanic	14	1,421	5.6	3.3	7.9
Asian/PI	13	1,190	6.7	2.0	11.4
American Indian	1	‡	‡	‡	‡
Education					
<High School	52	4,793	5.0	4.0	6.0
High School	118	11,297	5.1	4.2	5.9
Some College	109	8,949	6.3	5.5	7.1
College+	106	8,894	5.9	4.9	6.9
Marital Status					
Married	222	19,743	6.1	5.5	6.7
Un-married	166	14,661	5.1	4.4	5.8
					2005 MI PRAMS

‡ Data not shown due to small sample size

Table 28:
Barriers to breastfeeding continuation among women who had discontinued breastfeeding before being surveyed,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Barriers					
Thought was not producing enough milk	172	15,390	36.1	31.1	41.2
Breastmilk did not satisfy infant	149	14,623	34.3	29.3	39.3
Infant had difficulty nursing	165	14,930	35.0	30.0	40.1
Other	147	12,380	29.1	24.3	33.8
Had to return to work/school	81	7,890	18.5	14.4	22.7
Nipples became sore, cracked, or bleeding	94	10,252	24.1	19.4	28.8
Felt it was time to discontinue	56	5,367	12.6	9.1	16.1
Too many household duties	73	7,151	16.8	12.7	20.9
Needed another person to feed the infant	66	6,698	15.7	11.9	19.6
Baby Jaundiced	53	5,220	12.3	8.7	15.8
Thought infant was not gaining enough weight	42	4,008	9.4	6.4	12.5
Mother became sick and could not nurse	33	2,639	6.2	3.7	8.7
Infant became sick and could not nurse	15	1,285	3.0	1.4	4.7
					2005 MI PRAMS

Table 29:
Smoking status during pregnancy (compared with pre-pregnancy smoking),
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,299	122,546			
Smoking Status					
Nonsmoker	914	86,997	71.0	68.2	73.8
Smoker who quit	77	8,087	6.6	5.0	8.2
Smoker (reduced # of cigarettes)	111	10,496	8.6	6.8	10.3
Smoker (same # of cigarettes)	193	16,661	13.6	11.5	15.7
Nonsmoker who began smoking	4	‡	‡	‡	‡

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 30:
Smoking status in the last three months of pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,297	122,456			
Smoking Status					
Smoked	217	19,373	15.8	81.9	86.4
Did not smoke	1,080	103,083	84.2	13.5	18.1

2005 MI PRAMS

Table 31:
Smoking status in the last three months of pregnancy by maternal demographic characteristics, 2005 MI PRAMS

	Did not smoke					Smoked				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,080	103,083	84.2			217	19,373	15.8		
Maternal age (years)										
<18	22	2,028	65.9	47.0	84.7	12	1,051	34.1	15.3	53.0
18-19	60	6,698	75.8	66.5	85.2	26	2,133	24.2	14.8	33.5
20-24	218	20,667	77.8	72.3	83.3	70	5,901	22.2	16.7	27.2
25-29	346	31,866	85.3	81.3	89.4	54	5,475	14.7	10.6	18.7
30-34	280	27,498	88.9	84.8	93.0	36	3,441	11.1	7.0	15.2
35-39	120	11,183	89.6	83.6	95.5	17	1,300	10.4	4.5	16.4
40+	34	3,143	97.7	94.1	100.0	2	‡	‡	‡	‡
Race/Ethnicity										
White, Non-Hispanic	789	72,379	82.3	79.6	85.1	180	15,556	11.0	15.3	17.7
Black, Non-Hispanic	173	18,462	90.4	85.7	95.1	23	1,960	9.6	4.9	14.3
Hispanic	50	5,526	91.9	82.7	100.0	3	‡	‡	‡	‡
Asian/Pacific Islander	35	2,973	92.2	81.2	100.0	2	‡	‡	‡	‡
American Indian	5	‡	‡	‡	‡	1	‡	‡	‡	‡
Education										
<High School	89	9,327	60.9	51.8	70.0	64	5,991	39.1	30.0	48.2
High School	271	29,714	76.0	71.2	80.8	100	9,385	24.0	19.2	28.2
Some College	299	26,048	89.2	85.6	92.8	40	3,139	10.8	7.2	14.4
College+	407	35,577	98.0	96.6	99.3	12	742	2.0	0.7	3.4
Medicaid Status										
Medicaid Ever	391	38,819	72.7	68.5	76.9	164	14,577	27.3	23.1	31.5
Medicaid Never	686	64,059	93.4	91.3	95.4	52	4,557	6.6	4.6	8.7

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 32:
Infant birth weight by maternal smoking status in the last three months of pregnancy,
2005 MI PRAMS

	Low Birthweight					Normal Birthweight				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,080	103,083				983	113,536			
Smoking Status										
Did not Smoke	241	6,722	6.5	5.6	7.5	839	96,361	93.5	92.5	94.4
Smoked	73	2,198	11.3	8.3	14.4	144	17,175	88.7	85.6	91.7

2005 MI PRAMS

Table 33:
Smoking status in the postpartum period
(compared with pre-pregnancy smoking),
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,297	122,456			
Smoking Status					
Nonsmoker	918	87,302	71.3	68.5	74.1
Smoker who quit	162	15,780	12.9	10.8	15.0
Smoker (reduced # of cigarettes)	141	12,256	10.0	8.2	11.9
Smoker (same # of cigarettes)	76	7,117	5.8	4.3	7.3
Nonsmoker Resumed					

2005 MI PRAMS

Table 34:
Smoking status in the postpartum period
(compared with pregnancy smoking),
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,297	94,157			
Smoking Status					
Nonsmoker	983	94,157	76.9	74.3	79.5
Smoker who quit	8	‡	‡	‡	‡
Smoker (reduced # of cigarettes)	15	1,431	1.2	0.5	1.9
Smoker (same # of cigarettes)	194	17,015	13.9	11.8	16.0
Nonsmoker who began smoking	97	8,926	7.3	5.7	8.9
					2005 MI PRAMS

‡ Data not shown due to small sample size

Table 35:
Alcohol consumption during pregnancy
(compared with pre-pregnancy drinking),
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,283	120,880			
Alcohol Consumption					
Nondrinker	529	51,619	42.7	39.6	45.8
Drinker who quit	675	62,146	51.4	48.3	54.5
Drinker (reduced # of drinks)	38	3,593	3.0	1.9	4.0
Drinker (# of drinks same or more)	41	3,522	2.9	1.9	3.9
					2005 MI PRAMS

Table 36:
Prevalence of infant sleep position,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,224	117,478			
Sleep Position					
Supine/Back	889	83,471	71.1	68.1	74.0
Prone/Stomach	187	19,371	16.5	14.0	18.9
Side	148	14,636	12.5	10.3	14.6
					2005 MI PRAMS

Table 37a:
Prevalence of infant sleep position by maternal demographic characteristics,
2005 MI PRAMS

	Supine/Back					Side				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	889	83,471				148	14,636			
Maternal age (years)										
<18	20	1,510	48.2	28.4	68.0	5	‡	‡	‡	‡
18-19	44	3,844	48.9	35.9	61.9	15	1,451	18.5	8.8	28.1
20-24	188	16,666	67.9	61.3	74.5	34	4,412	18.0	12.2	23.8
25-29	285	26,585	72.6	67.5	77.7	49	4,520	12.3	8.6	16.1
30-34	232	23,329	77.6	72.4	82.9	26	2,115	7.0	3.9	10.2
35-39	93	9,131	75.7	67.3	84.2	12	1,067	8.9	3.2	14.6
40+	27	2,407	74.5	57.4	91.5	7	‡	‡	‡	‡
Race/Ethnicity										
White, Non-Hispanic	702	64,664	75.7	72.5	78.8	111	9,973	11.7	9.3	14.0
Black, Non-Hispanic	94	9,357	50.4	41.6	59.2	24	2,785	15.0	8.8	21.2
Hispanic	35	3,798	65.1	50.1	80.1	6	1,019	17.5	4.8	30.2
Asian/Pacific Islander	29	2,473	80.5	64.3	96.7	4	‡	‡	‡	‡
American Indian	4	‡	‡	‡	‡	0	‡	‡	‡	‡
Education										
<High School	96	10,148	70.1	61.0	79.2	23	2,331	16.1	9.0	23.2
High School	229	23,796	65.5	59.7	71.3	44	5,102	14.0	9.8	18.2
Some College	242	20,603	72.0	66.5	77.5	39	3,576	12.5	8.4	16.6
College+	315	27,927	78.4	73.9	82.9	38	2,798	7.9	4.9	10.8
Medicaid Status										
Medicaid Ever	350	33,624	67.3	62.6	72.1	64	6,742	13.5	10.1	16.9
Medicaid Never	536	49,420	73.6	69.9	77.4	84	7,894	11.8	9.0	14.5

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 37b:
Prevalence of infant sleep position by maternal demographic characteristics,
2005 MI PRAMS

	Prone/Stomach				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	187	19,371			
Maternal age (years)					
<18	9	1,160	37.0	16.1	57.9
18-19	16	2,563	32.6	19.4	45.9
20-24	39	3,469	14.1	9.5	18.8
25-29	53	5,496	15.0	10.9	19.1
30-34	46	4,607	15.3	10.8	19.9
35-39	21	1,859	15.4	8.4	22.5
40+	3	‡	‡	‡	‡
Race/Ethnicity					
White, Non-Hispanic	117	10,819	12.7	10.3	15.1
Black, Non-Hispanic	53	6,418	34.6	26.0	43.1
Hispanic	9	1,017	17.4	5.8	29.1
Asian/Pacific Islander	1	‡	‡	‡	‡
American Indian	2	‡	‡	‡	‡
Education					
<High School	18	2,004	13.8	6.7	21.0
High School	62	7,435	20.5	15.5	25.5
Some College	50	4,445	15.5	11.0	20.0
College+	54	4,897	13.7	10.0	17.5
Medicaid Status					
Medicaid Ever	91	9,562	19.2	15.1	23.2
Medicaid Never	96	9,809	14.6	11.6	17.6

2005 MI PRAMS

‡ Data not shown due to small sample size

Table #38:
Prevalence of infant bed sharing,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	1,311	123,737			
Bed Sharing					
Never Sleeps Alone	820	77,916	63.0	60.0	66.0
Sometimes Sleeps Alone	192	17,866	14.4	12.3	16.6
Always Sleeps Alone	299	27,955	22.6	20.0	25.2
					2005 MI PRAMS

Table 39a:
Prevalence of infant bed sharing by maternal demographic characteristics,
2005 MI PRAMS

	Never Sleeps Alone					Sometimes Sleeps Alone				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	820	77,916	62.9			192	17,866	14.4		
Maternal age (years)										
<18	17	1,450	43.0	24.5	61.5	4	‡	‡	‡	‡
18-19	43	4,492	49.5	37.4	61.6	14	1,628	17.9	8.2	27.7
20-24	170	15,892	59.6	53.1	66.2	50	4,652	17.5	12.3	22.6
25-29	268	25,294	67.0	61.8	72.2	45	4,032	10.7	7.4	14.0
30-34	213	20,883	67.1	61.3	72.9	49	4,623	14.9	10.5	19.2
35-39	86	7,857	62.7	53.3	72.0	19	1,699	13.5	7.1	20.0
40+	23	2,048	63.4	45.3	81.5	11	‡	‡	‡	‡
Race/Ethnicity										
White, Non-Hispanic	687	62,895	71.1	67.8	74.3	132	11,367	12.8	10.5	15.2
Black, Non-Hispanic	74	8,288	39.7	31.6	47.8	39	4,148	19.9	13.2	26.5
Hispanic	24	2,688	43.9	29.1	58.6	9	1,103	18.0	6.7	29.3
Asian/Pacific Islander	11	‡	‡	‡	‡	6	‡	‡	‡	‡
American Indian	4	‡	‡	‡	‡	1	‡	‡	‡	‡
Education										
<High School	81	8,986	57.2	48.2	66.2	19	1,581	10.1	4.9	15.3
High School	235	24,995	63.0	57.3	68.6	51	5,515	13.9	9.8	18.0
Some College	211	18,122	61.7	55.9	67.5	56	4,561	15.5	11.3	19.8
College+	285	24,355	66.8	61.8	71.9	64	5,858	16.1	12.0	20.1
Insurance Status										
Medicaid Ever	317	30,951	57.0	52.2	61.7	85	8,512	15.6	12.1	19.2
Medicaid Never	501	46,669	67.9	64.1	71.7	107	9,354	13.6	10.9	16.4

2005 MI PRAMS

‡ Data not shown due to small sample size

Table 39b:
Prevalence of infant bed sharing by maternal demographic characteristics,
2005 MI PRAMS

	Always Sleeps Alone				
	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	299	27,955	22.6		
Maternal age (years)					
<18	16	1,595	47.3	28.1	66.4
18-19	30	2,950	32.5	21.2	43.8
20-24	69	6,099	22.9	17.2	28.5
25-29	92	8,443	22.4	17.7	27.0
30-34	56	5,604	18.0	13.3	22.7
35-39	33	2,984	23.8	15.4	32.2
40+	3	‡	‡	‡	‡
Race/Ethnicity					
White, Non-Hispanic	156	14,226	16.1	13.4	18.8
Black, Non-Hispanic	88	8,425	40.4	32.5	48.3
Hispanic	21	2,339	38.2	23.8	52.5
Asian/Pacific Islander	22	1,895	55.8	38.3	73.3
American Indian	1	‡	‡	‡	‡
Education					
<High School	57	5,143	32.7	24.3	41.2
High School	91	9,192	23.2	18.2	28.1
Some College	75	6,673	22.7	17.6	27.8
College+	71	6,223	17.1	13.1	21.1
Insurance Status					
Medicaid Ever	161	14,837	27.3	23.1	31.6
Medicaid Never	133	12,689	18.5	15.3	21.7

2005 MI PRAMS

Table 40:
Prevalence of physical abuse prior to pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,295	122,152			
Physically Abused					
Not Abused	1,223	114,710	93.9	92.3	95.5
Abused	72	7,442	6.1	4.5	7.7
					2005 MI PRAMS

Table 41:
Person inflicting abuse among women abused prior to pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	72	7,442			
Abuser					
Abused by husband/ex-husband/partner/ex-partner	44	4,440	3.6	1.4	3.5
Abused by someone else	28	3,003	2.5	2.4	4.9
					2005 MI PRAMS

Table 42:
Prevalence of physical abuse during pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,302	122,743			
Physically Abused					
Not Abused	1,261	118,620	96.6	95.5	97.8
Abused	41	4,123	3.4	2.2	4.5
					2005 MI PRAMS

Table 43:
Person inflicting abuse among women abused during pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	40	4,067			
Abuser					
Abused by husband/ex-husband/partner/ex-partner	28	2,932	2.4	1.4	3.4
Abused by someone else	12	1,135	0.9	0.3	1.5
					2005 MI PRAMS

Table 44:
Prevalence of verbal abuse in the year prior to delivery,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,294	122,167			
Verbally Abused					
Not Verbally Abused	1,218	115,315	94.4	92.9	95.8
Verbally Abused	76	6,852	5.6	4.2	7.1
					2005 MI PRAMS

Table 45:
Prevalence of women hearing or reading about folic acid and its benefits,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,238	116,137			
Heard/read about folic acid					
Yes	943	87085	75.0	72.1	77.8
No	295	29052	25.0	22.2	27.8
					2005 MI PRAMS

Table 46:
Prevalence of women instructed, by a health care professional on the appropriate amount of folic acid to consume,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,238	116,137			
Heard/read about folic acid					
Yes	943	87085	75.0	72.1	77.8
No	295	29052	25.0	22.2	27.8
					2005 MI PRAMS

Table 47:
Prevalence of multivitamin consumption in the month prior to pregnancy,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,306	123,219			
Multivitamin Consumption					
No multivitamin	703	68,104	55.3	52.2	58.3
1-3 times per week	125	11,633	9.4	7.7	11.2
4-6 times per week	97	9,332	7.6	6.0	9.2
Daily	381	34,149	27.7	25.0	30.5
					2005 MI PRAMS

Table 48:
Prevalence of folic acid awareness and/or instruction by a health care professional,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	1,195	111,617			
Awareness of folic acid/Instructed by heathcare professional					
Aware and Instructed	683	60,841	54.5	51.3	57.7
Aware, but not instructed	236	23,532	21.1	18.4	23.8
Instructed, but not aware	60	6,608	5.9	4.3	7.5
Neither instructed or aware	216	20,637	18.5	15.9	21.1

2005 MI PRAMS

Table 49a:
Multivitamin consumption in the month prior to pregnancy by folic acid awareness and/or instruction by a healthcare professional,
2005 MI PRAMS

	No multivitamin					1-3 times per week				
	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	625	59,444				118	11,025			
Awareness of folic acid/Instructed by heathcare professional										
Aware and Instructed	303	27,517	45.2	41.0	49.5	60	5,316	8.7	6.4	11.1
Aware, but not instructed	125	12,282	52.2	45.0	59.4	41	4,170	17.7	12.2	23.3
Instructed, but not aware	40	4,512	68.3	55.3	81.3	1	DSU	DSU	DSU	DSU
Neither instructed or aware	157	15,134	73.8	67.0	80.6	16	1,437	7.0	3.2	10.8

2005 MI PRAMS

DSU: Data Statistically Unreliable

Table 49b:
Multivitamin consumption in the month prior to pregnancy by folic acid awareness and/or instruction by a healthcare professional,
2005 MI PRAMS

	4-6 times per week					Daily				
	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI	Sample Frequency (N)	Weighted Frequency (N)	Weighted Percent	LCI	UCI
Total	92	8,803				358	32,214			
Awareness of folic acid/Instructed by heathcare professional										
Aware and Instructed	67	6499	10.7	8.0	13.3	253	21509	35.4	31.3	39.4
Aware, but not instructed	16	1,577	6.7	3.3	10.1	54	5502	23.4	17.2	29.5
Instructed, but not aware	2	DSU	DSU	DSU	DSU	17	1719	26.0	13.8	38.2
Neither instructed or aware	7	DSU	DSU	DSU	DSU	34	3484	17.0	11.0	23.0

2005 MI PRAMS

DSU: Data Statistically Unreliable

Table 50:
Prevalence of WIC participation during pregnancy among income eligible women,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	558	53,653			
WIC Participation During Pregnancy					
Yes	445	42,793	79.8	75.9	83.7
No	113	10,860	20.2	16.3	24.1

2005 MI PRAMS

Analysis restricted to women who were found to be income eligible for WIC and whose infant did not participate in WIC. Women who participated in Medicaid prior to pregnancy, had Medicaid-paid prenatal care, Medicaid-paid delivery, or received federal income assistance were classified as being income eligible for WIC

Table 51:
Prevalence of WIC participation postpartum among income eligible women,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Total	527	51,707			
WIC Participation-Infant					
Enrolled	462	45,093	87.2	83.9	90.5
Not enrolled	65	6,614	12.8	9.5	16.1

2005 MI PRAMS

Analysis restricted to women who were found to be income eligible for WIC and whose infant did not participate in WIC. Women who participated in Medicaid prior to pregnancy, had Medicaid-paid prenatal care, Medicaid-paid delivery, or received federal income assistance were classified as being income eligible for WIC

Table 52:
Reason for nonparticipation among income eligible women, who's infant did not participate in WIC,
2005 MI PRAMS

	Sample Frequency (n)	Weighted Frequency (N)	Weighted Percent	Lower confidence interval	Upper confidence interval
Reasons					
Do not want to enroll infant	24	2269	32.3	19.4	44.9
Other	21	2029	28.9	16.6	41.2
Infant not eligible	13	1626	23.1	11.0	35.3
Unaware of WIC	5	701	10.0	0.6	19.4

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Analysis restricted to women who were found to be income eligible for WIC and whose infant did not participate in WIC. Women who participated in Medicaid prior to pregnancy, had Medicaid-paid prenatal care, Medicaid-paid delivery, or received federal income assistance were classified as being income eligible for WIC

Jennifer M. Granholm, Governor
Janet Olszewski. Director

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